

# THE AMERICAN School Board Journal

September



1900.  
Vol. XXI. No. 3  
SUBSCRIPTION PRICE, \$1.00 PER YEAR.

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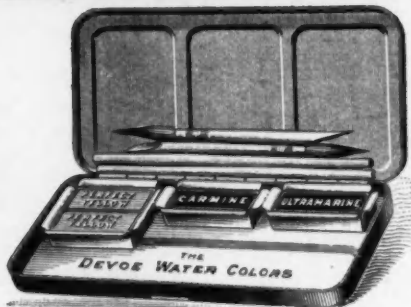
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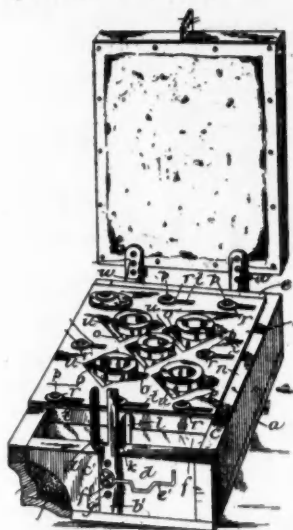
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Special Notice to Teachers and All School Officials:



Your attention is called to the sticky, muddy filthy ink so often found in the inkwells of school desks; to pupils getting ink by accident or mischief on desks, books, clothing, fingers and floor; to the danger of transmitting disease by storing and using in common the pens and pencils; to the general rapid evaporation of ink; to the large amount of time, energy and nerve force wasted by the teacher in the care of inkwells as usually left in school desks. All this can now be avoided by using the Barten Antiseptic Cabinet for collecting, storing and distributing inkwells, pens and pencils. Its use prevents the pupil forming a habit of writing a muddy, coarse ugly hand; prevents freezing of ink; promotes health, cleanliness, better educational progress, convenience, etc.

The Cabinet is adjustable to fit inkwells of any size. Can be made to hold any number of inkwells—preferably 15. It is very light, durable, everlasting, beautiful, handy and cheap. When pupils have finished writing the teacher takes the cabinet, goes to a pupil's desk, the pupil puts his hand under the desk and slightly elevates the inkwell; the teacher takes it and puts it in the cabinet, then he takes the pen, wipes it clean on the penwiper in the cabinet, dropping the pen into its compartment. On the bottom of this compartment is a pad containing a disinfectant which destroys disease germs on penholders from breath or mouth of diseased pupils. After all the inkwells and pens are collected the close-fitting cover is placed on the cabinet which is put in a safe place. All this is done in less time than it takes to tell it, with no inconvenience.

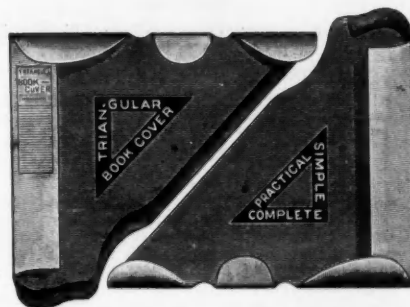
This invention is the result of long and patient experimenting. It has been constantly used in the school room and constantly improved for several years. It is perfect. Have a few on hand for delivery. Write for prices, etc.

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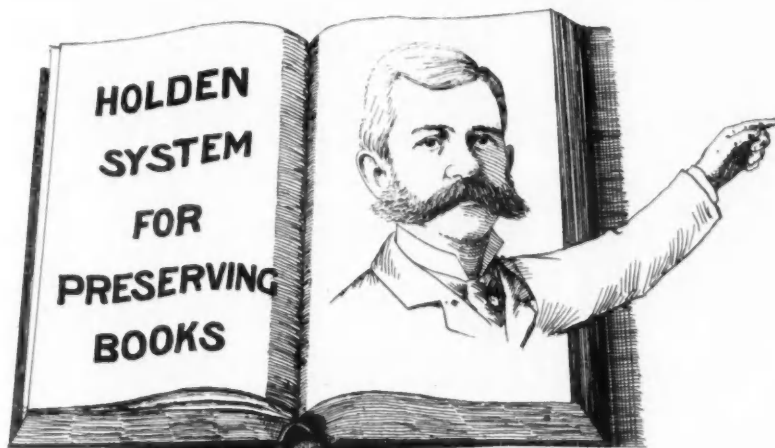
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When the ordinary school officer buys school furniture, what does he know about it? Precious little. Few people do. We can't all be school desk experts and only experts can tell a thing about it. Most people judge by appearance from "the outside" of sample submitted. All samples generally look well, the iron work nicely japanned, the woodwork beautifully finished; but how about the desks you will receive—their comfort, durability, etc? That depends upon the "inside"—the material used—whether seasoned lumber or not, the quality of iron, varnish, etc., and you can't tell about these things when examining the nice sample. These things are hidden from you when you are buying and you will know about them only when you have received the desks and used them awhile, and you will often find that you have been grossly deceived. Then, however, it is too late—if the desks are wrong, it is your loss.

Therefore you should buy school furniture from people in whose integrity you have full confidence.

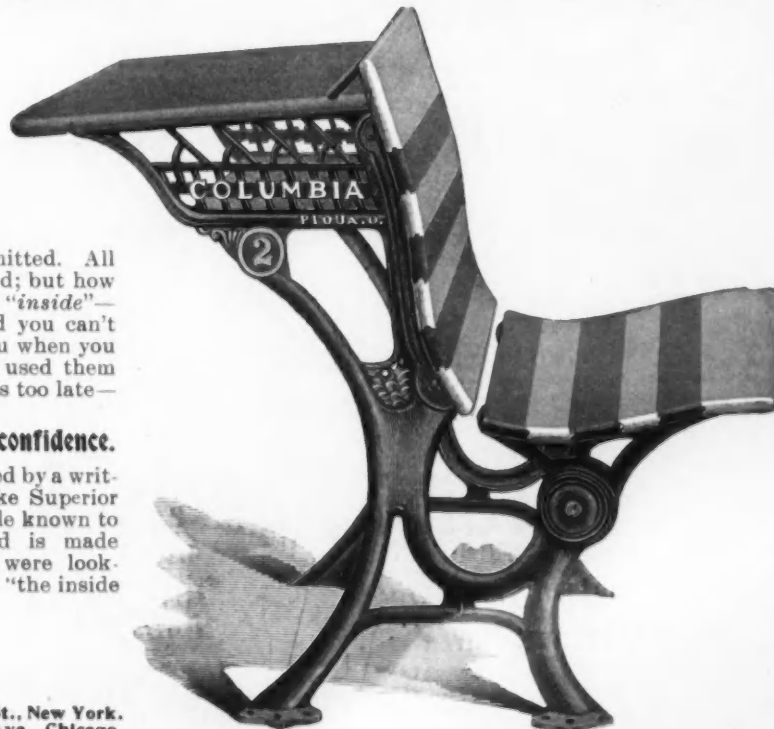
If you buy the Columbia, you are buying from manufacturers, not middlemen, and are protected by a written guarantee that desks will be as represented, made of thoroughly seasoned lumber, Lake Superior charcoal iron, put together in a substantial workmanlike manner, finished in the best style known to the trade. Every desk warranted in every respect for fifteen years. Every desk sold is made under supervision of experts. If this factory were made of glass, and all the world were looking in, more pains could not be taken in the construction of our furniture than is done. That's "the inside of the outside" of its success. Write for catalogues, prices, etc. Agents Wanted.

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1900

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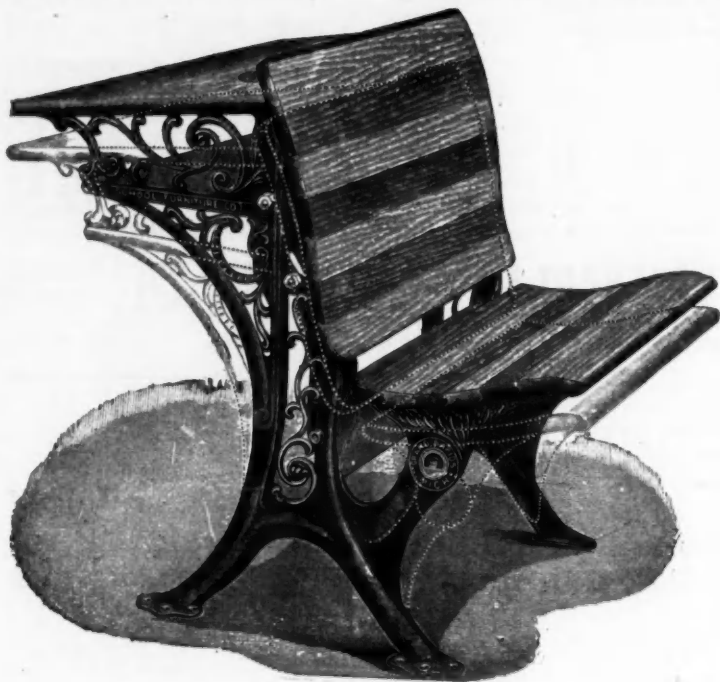
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Investigate and you will find, *not one*. Pursue your investigations further and you will find that nearly every other so-called Combination Adjustable Desk is a weak imitation of the Grand Rapids style. "Grand Rapids" goods are popular with school boards and have been for a generation. "Grand Rapids" ideas are quite a source of inspiration to competitors.

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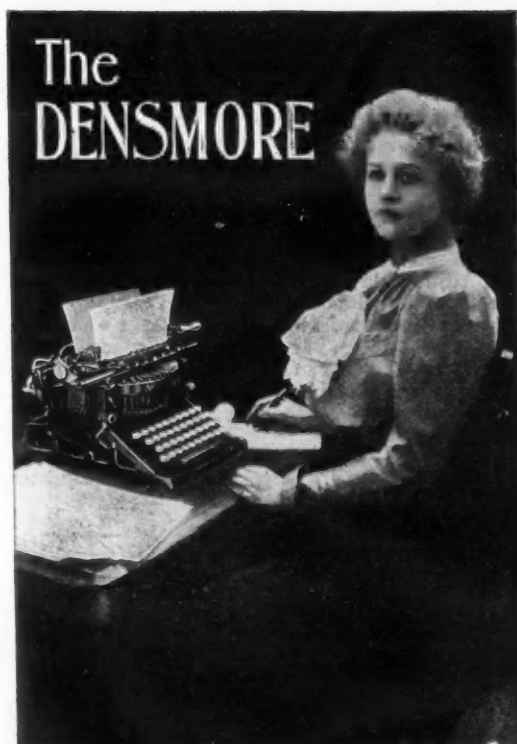
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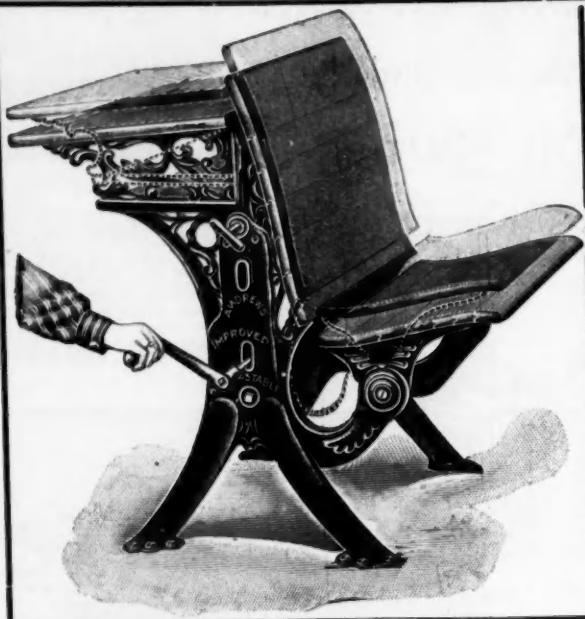
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## THE EFFECT OF ASSOCIATION.

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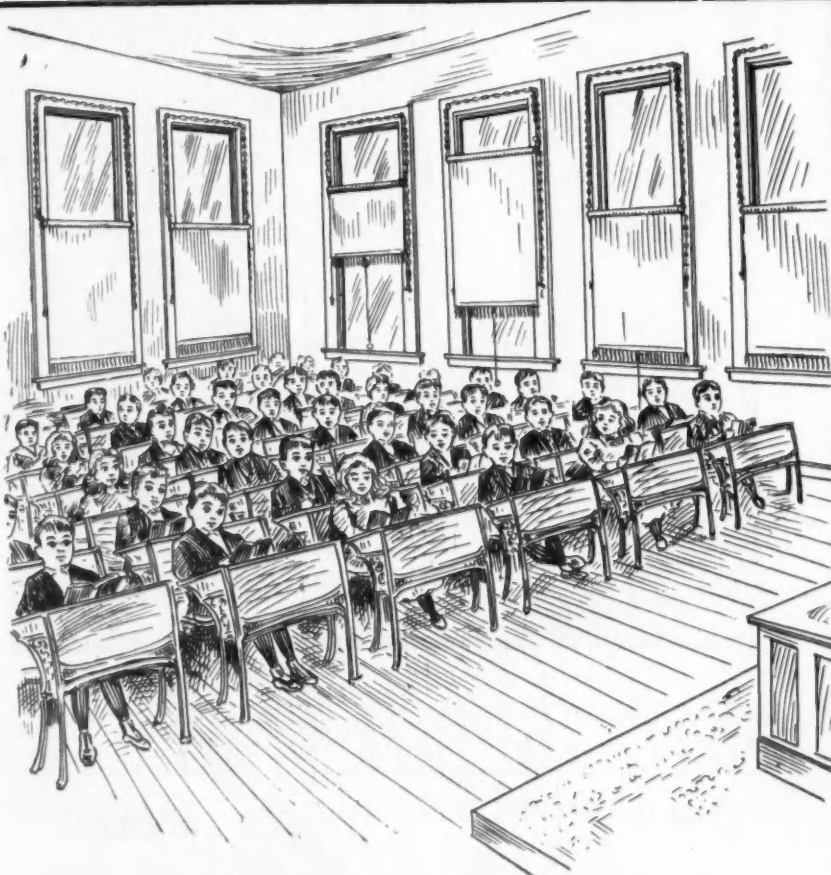
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Superintendent of Education.

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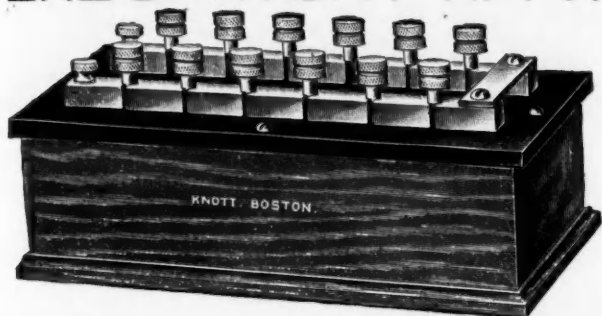
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PRICE \$1.00 each.

Discount allowed on lots.

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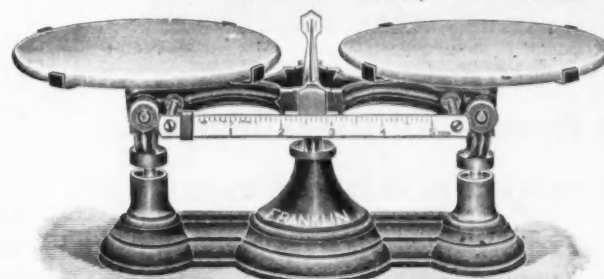
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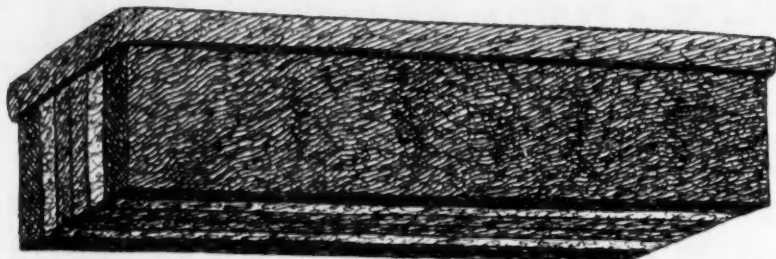
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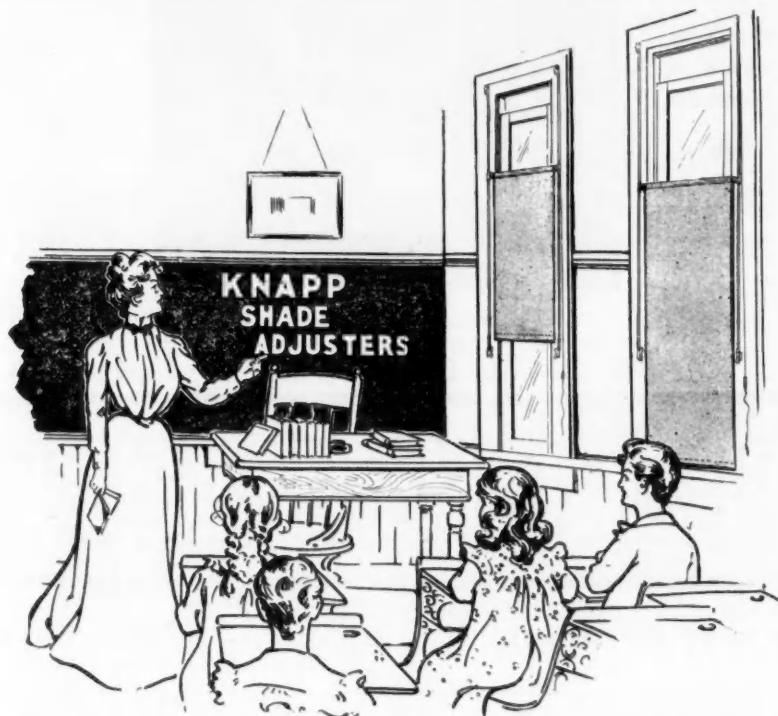
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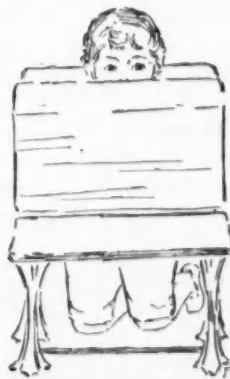
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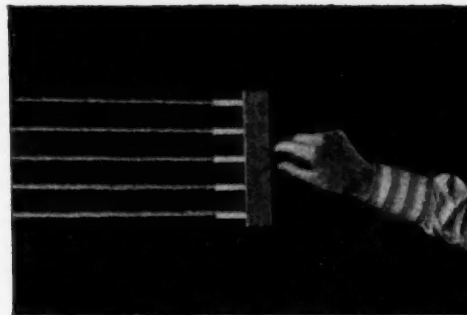
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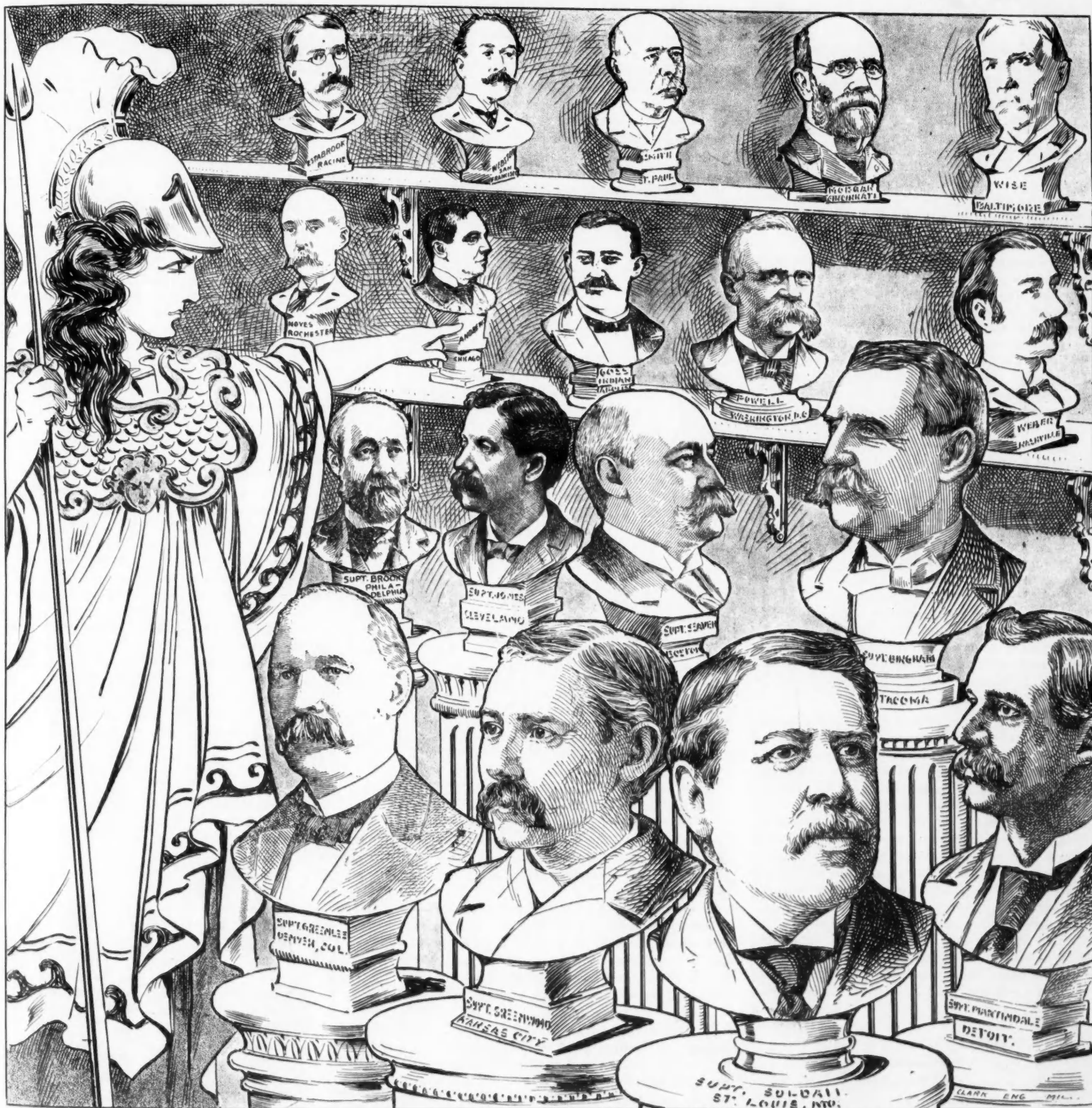


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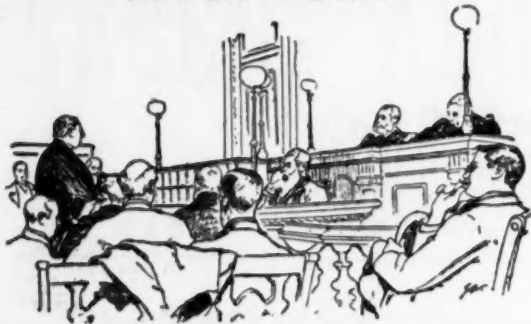


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## Teachers' Contracts.

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## Resignations.

The fact that a tender of a resignation by a teacher under contract to teach in a district was handed to the president of the district board, and retained by him, did not constitute an acceptance thereof, where it remained for the board to act on the tender.—Curttright vs. Independent School Dist. of Center Junction, Ia.

The tender of a resignation by a teacher under a contract to teach in a certain district, being a mere offer, is not binding on either party to the contract until accepted, and may be withdrawn at any time before it is acted on by the district board.—Curttright vs. Independent School Dist. of Center Junction, Ia.

The fact that a teacher under a contract to teach in a certain district tendered his resignation at the close of a term, drew the pay that was due him, and delivered up the key of the school house on demand of the district board, is insufficient to show an abandonment of the contract, where he afterwards, and before the commencement of the next term, withdrew his resignation prior to its acceptance.—Curttright vs. Independent School Dist. of Center Junction, Jones County, Ia.

## Breach of Contracts.

In an action by a teacher against a school district for damages for breach of contract, it appeared that plaintiff tendered his resignation, but withdrew it before it was accepted, and that the district board thereupon formally accepted the resignation. Held, that the claim of defendant that, if there was no resignation before the board, its action was an order of discharge under the law, authorizing district boards to discharge teachers for incompetency, and after an investigation at a meeting convened for that purpose, at which the teacher may be present, and make his defense, and that plaintiff, not having appealed from the order of discharge to the county superintendent, as provided by the law, could not maintain the action, was untenable, it not appearing that any complaint was made against plaintiff, or that he was called on to make any defense.—Curttright vs. Independent School Dist. of Center Junction, Jones County, Ia.

## Examinations.

A law commits to the county commissioner the right to pass upon the sufficiency of the reasons of an applicant for a license for failure to attend the regular examination, and his decision must be treated as final as it is in matters relating to character and qualification, unless attacked for actual fraud.—Randol vs. Sloan, Mo.

Under a law relating to county teachers' institutes, the mere presence of an applicant at the institute and session of the board of examiners, even though he went to submit to an examination, and was to an extent examined, will not deprive such applicant of subsequently procuring a license from the county commissioner, if he satisfies the commissioner that at the date of the examination he was, from illness, physically and mentally incompetent to properly present his qualifications.—Randol vs. Sloan, Mo.

## Certificates and Licenses.

A law requires a teacher in New York City schools to have a license to teach issued by the city superintendent and two supervisors of the board of education. A law makes a certificate from the state superintendent of public instruction conclusive evidence that the person to whom it is granted is qualified to teach in any schools of the state. Held, that such a state certificate authorizes the employment of the holder as a teacher in the New York City schools, though he has no license from the city superintendent, since the law makes the city schools subject to the general state laws.—Judgment—Steinson vs. Board of Education of City of New York, N. Y.

A law provides for examination for a license to teach by the city superintendent and two inspectors of schools, and requires the license to be signed by the superintendent and the inspectors, who shall certify that they were present at the examination and concurred in the license. The by-laws of the board of education permit the city superintendent to issue a license for six months, but no permanent license can be issued until the candidate has had six months' experience as a teacher. Held, that such city superintendent cannot renew a provisional license at the expiration of six months, but just refuse a further license, or, on a proper examination, grant a permanent license.—Steinson vs. Board of Education of City of New York, N. Y.

## Recovery of Salaries.

A teacher in the employment of the board of education of the City of New York does not hold a public office, requiring him to be reinstated to a position from which he has been removed to recover his compensation, since, if his employer refuses to permit him to work, he need only to offer his services from time to time, and then sue for his salary.—Steinson vs. Board of Education of City of New York, N. Y.

A teacher who has offered to perform his contract without being permitted to do so, and who has been improperly removed, is entitled to recover his salary.—Steinson vs. Board of Education of City of New York, N. Y.

## Bible Reading.

An injunction will not lie to restrain a teacher from reading the Bible in the school contrary to a resolution of the board of education, the remedy of the board being either to discharge the teacher or to rescind the rule.—Board of Education of New Antioch Special School Dist. vs. Paul, Ohio.

A teacher's reading the Bible in school contrary to a resolution of the board of education is a violation of her contract to conform to the lawful regulations of the board, for which she may be discharged.—Board of Education of New Antioch Special School Dist. vs. Paul, Ohio.

## Dismissals.

A statement in trespass alleging conspiracy among defendants to deprive plaintiff of her position as school teacher, which sets forth certain acts done by defendants as individuals, and certain other acts by them as principal and directors of the school, and then avers that "none of defendants were acting in good faith or lawfully, that they conspired together to accomplish the dismissal of plaintiff, and were acting unlawfully and in confederation, willfully, and maliciously to the accomplishment of said



Hon. J. J. DOYNE.

(The present State Superintendent for Arkansas—who has been nominated on Democratic ticket. Republicans will place no one in nomination against him.)

illegal purpose," is not insufficient on demurrer, as failing to state plaintiff's ground of complaint in a clear and succinct manner.—Griffith vs. McKelvey, Pa.

A stipulation, in a contract of employment, to pay plaintiff a certain wage "for the time actually occupied in school," must be construed simply as an intention to prohibit plaintiff from drawing her salary during vacation, or during the time she might be excusably absent or temporarily unable to discharge her duties, and not to apply to such time as the defendant might arbitrarily prevent plaintiff from performing her duties without discharging her under the contract.—McKay vs. Barnett, Utah.

## Pupils—Conduct and Discipline of Schools.

A rule prohibiting children who have just arrived at school age from entering the schools at any time except during the first month of the fall and spring terms is not reasonable or calculated to promote the objects of the law.—Board of Education vs. Bolton, Ill.

Petitioner, residing two miles from the nearest school in his own township, and one and one-half miles from a school in another township, applied to the school directors to make arrangements whereby his children could be sent to the nearer school. The directors attempted to make such arrangements by a transfer of children from the other district, but were refused, and could have arranged to send petitioner's children to the nearest school at an expense of only \$30 per year, which they refused to make. Held, that a rule to compel the directors to make the transfer must be discharged.—In re Grove, Pa.



Citizen—I suppose it simply requires "push" to secure an appointment on the school board.

School Director—No sir; it simply requires "pull."



# New Rules and Regulations

Brooklyn, N. Y. Janitors are prohibited from employing for service in the schools as assistants persons who cannot speak and read English.

Melrose, Mass. A plan has been adopted, under which all pupils who attend the high school next year, and who are not now in the school, may select such courses of study as shall best prepare them for their life's work. Elective blanks are distributed and taken home, where parents and pupils can carefully decide on a course of study, suitable either for college, for a scientific school, for the normal school, or for a business career.

Syracuse, N. Y. The board, acting on the suggestion of State Supt. of Schools Skinner, has decided to amend the rules by striking out the clause providing for the reading of the Bible in the schools.

Holyoke, Mass. The school board has issued an order that all single male teachers in the schools must forthwith marry or lose their positions.

Wichita, Kan. A pretty school teacher in the Wilson district, Nemaha county, in the western part of the state, has adopted a unique scheme to make her scholars attend school. Whenever a student attends school one whole week without being tardy or absent, she kisses that student, whether male or female. If the student is tardy only once or absent once she allows that student to kiss her. All students who disobey this standard are ruled out of the kissing match. The kisses are given and taken every Friday afternoon.

There are sixty-five pupils who attend this school, mostly boys, and they were hopeless victims of the "hookey" habit. Try as the teacher would, she could not keep them in school regularly. She arranged a list of prizes to those who attended regularly, but without the desired effect. Then she consulted with the school board on the kissing question. They were willing, if she cared to experiment that way. Some of the school board members said among themselves, if she did adopt the plan, they believed they would start to school again. She introduced the scheme and it has so far worked well.

Lincoln, Neb. No applicant for the position of teacher is considered under 19 years of age.

Omaha, Neb. Hereafter the board will not employ as teachers or enter into a contract with any married woman whose husband is in good health or who has sufficient means so that he is able to support his family, and any woman now on the permanent list who shall hereafter marry shall at the end of the school year following her marriage cease to hold a place on the permanent list, and shall be placed on the list subject to annual re-election.

Central City, Colo. The following standard has been adopted for the employment of new teachers: "For all teachers in the first eight grades, a candidate, to be eligible, must have a high school education, a first-grade certificate, and shall have had at least two years' successful experience in teaching, one year of which must have been in a graded school. For all teachers above the eighth grade, in addition to the above requirements, a college education shall be required."

Chicago, Ill. The school trustees have decided that applicants of both sexes seeking admission to the city normal school shall, after medical

examination, be excluded for the following causes:

Pulmonary tuberculosis.

Marked physical deformity of any kind.

Pronounced neurasthenia, or nervous exhaustion.

Irremediable defects in sight or hearing.

Such organic disorders or such structural or nutritional deficiencies as may prevent the proper care and control of the pupils.

Denton, Tex. A resolution adopted prohibits the use of the public school buildings for any other than school purposes.

Cambridge, Mass. The board has decreed that no school is to be held on unusually hot afternoons in May, June and September.

Holyoke, Mass. Because the instructor in history in the high school told the scholars that Christ was one of ten brothers and sisters, the board of education requested the instructor's resignation and accepted the same without a dissenting vote.

Chicago, Ill. A scheme was brought before the board in the form of a recommendation from the superintendents that any college graduate who had served as a cadet for four months should be given a teacher's certificate and not be made to spend four years in gaining experience, as it is now required. The members of the board thought the plan an unfair advantage to the college graduate, and the proposition was unanimously defeated.

San Francisco, Cal. Among the new rules adopted is one declaring: "Any employe of this department who willingly neglects to pay his or her just debts, having the ability to do so, shall be subject to suspension or dismissal from the department." Another rule reads: "Any teacher who, after proper examination by a physician designated by the board of education, shall be found to be suffering from tuberculosis or offensive catarrh, shall be subject to dismissal."

Glens Falls, N. Y. Children under four and over six are not admitted to the kindergarten.

New York, N. Y. There is a rule that one must have had two years' experience in high school instruction to be a high school principal.

Schenectady, N. Y. Supt. Howe does not favor fire drills in schools. He believes that the drills break up the sessions of the schools and that as far as this city is concerned there is practically no danger from fire in the schools.

Omaha, Neb. Certain Janitors at times aspire to mix promiscuously in affairs of the schools, and go outside their sphere to meddle with business they were not employed to attend to. The janitor of the West Side school recently insisted upon sweeping the floor of the principal's office while the latter, with some lady teachers, was engaged in some special work which took longer than the usual time. The principal asked the janitor to desist until the work was completed, but the janitor intimated that he was as much boss as anybody in that vicinity, and proceeded to cover the school ma'ms with dust. In sheer desperation the principal finally exercised his athletic skill and gently pushed the insolent janitor from the room. School patrons generally commend the principal for doing as he did, and a great many think he would have been justified in throwing the janitor down two flights of stairs and spanking him with a blackboard.

## EXPLANATION FROM MISS REEL.

EDITOR SCHOOL BOARD JOURNAL: In a recent issue of your valuable publication appeared, probably by inadvertence, the following:

"Washington, D. C. Indian Commissioner Jones has decided that no more women shall be appointed as superintendents of Indian schools and for some time past has been reducing those holding such offices to subordinate places, and putting men in charge of the schools. Owing to the character of the work required of superintendents, Commissioner Jones holds that women do not possess the necessary qualifications."

This article is a mis-statement. Commissioner Jones has not, as stated, decided that no more women shall be appointed as superintendents of Indian schools. The qualifications of women who may be applicants for such positions will be considered by the commissioner, in the future, as they have been in the past, upon the same basis as those of men and with the welfare of the Indian service in view.

The commissioner has not for some time past been reducing women holding such offices to subordinate positions. The records of the Indian school service show that no such reductions have been made. The commissioner does not hold that women do not possess the necessary qualifications for these positions. On the contrary, Commissioner Jones, who is a broad-minded, conscientious, hard-working official, appreciates the fact that women are doing their share in the great work of educating and civilizing the Indian youth of the country. He holds that women's work, whether in places of subordination or responsibility, is almost invariably performed faithfully and conscientiously, and that women are generally as successful in whatever they undertake as men.

It is due the commissioner that the article above quoted be not permitted to go undisputed, for Commissioner Jones, who is one of the best commissioners the Indian office has ever had, recognizes the earnest and faithful work of women in the Indian school service and does not discriminate against them in any manner.

Respectfully,

ESTELLE REEL, Supt. of Indian Schools.  
Washington, D. C., Aug. 13, 1900.



THE FIRST STEPS TO SCHOOL.

Drawn for the SCHOOL BOARD JOURNAL.

## School House Ventilation.

BY DR. A. T. HERSCHEMAN, Milwaukee, Wis.

Motto: If air is wanted in any particular place at any particular time, it must be put there, not allowed to go.—Robert Briggs.

The so-called school diseases of children are perfectly analogous to the diseases of occupation in adults.

With the beginning of school attendance the entire manner of life of children undergoes a sudden and radical change; they find themselves enclosed in rooms with many others for several hours a day and their attention is forcibly concentrated on definite subjects in a definite way. That involves a mental excitement as well as reading and writing require muscular efforts perfectly unknown to the child up to the first school day and of evil effect in individuals admitted too young, or too weak for school work. Bad light, too much near work, poorly printed books and desks of faulty construction give rise to impairing of sight and curvature of the spine. Constant vitiation of the air in a school room produces anemia and its consequences, as headaches, nervous prostration, digestive troubles and chronic constipation in the inmates. Furthermore, it promotes the spreading of contagious diseases of which schools are dreaded centres.

Efficacious ventilation is the means to counteract the deterioration of air. *The problem of air-renewal is a merely mathematical one.* It is supported partly by avoiding any unnecessary deterioration of the air A PRIORI. Both the questions, to minimize the vitiation and to promote the improvement of the air, are closely connected with the efforts to prevent contamination with germs of infection.

In dealing with this complex we can divide the subject as follows:

1. Composition of air and its variants.
2. Causes of air-vitiation in schools.
3. Means to prevent such.
4. Necessity and amount of air-renewal.
5. Means of securing it.
6. Resumé.

## I.

Dry normal outside-air is a composition of 79.02 parts of Nitrogen (N), including Argon, 20.94 parts of Oxygen (O),

0.04 parts of Carbonic acid gas (Carbon-dioxide, CO<sub>2</sub>).

Air, besides, contains a variable amount of moisture and traces of nitric acid, nitrites and nitrates, ammonia, hyperoxygen of hydrogen, and ozone. Air in cities will never show ozone and is more or less polluted by sewer gases, acids, carbonates, dust of all kinds, smoke and the like. The amount of CO<sub>2</sub> is frequently increased to 0.06-0.09%. Therefore the admissible limit of air-vitiation will be readily reached in city schools.

## II.

The deterioration of school-air is due to—

1. Gaseous products:

- (a) Of respiration.

Respired air contains 79.59 parts of N (+0.57%), 16.08 parts of O (—4.91%), and 4.38 parts of CO<sub>2</sub> (+4.34%).

The amount of CO<sub>2</sub> thus increases to the 110 fold in the air exhaled, which, in surplus, is loaded with toxic products.

- (b) Of perspiration.

- (c) Of exhalation and odors.

From decaying teeth, discharges of noses and ears, from perspiring feet, and intestinal gases.

- (d) Of decomposition.

From damp (softwood) floors, or coming from wet umbrellas, wet clothes or rubbers, or from the basement (toilet-room) through walls, ceilings or ventilation flues.

- (e) Products of combustion from artificial

light or dry distillation of organic matter on heating surfaces of too high a temperature.

2. Vitiation through solids (dust):

- (a) Of organic origin.

As skin scales, hair particles, such from luncheon, clothes and wood, manure and germs of all kind.

- (b) Anorganic dust. From stone, etc., pavements, chalk, calomining, metals (pens, needles).

In a class with special "shoe-cleaning drill" the amount of dust carried in from the street was 20 grains per caput on days with dry, and 30 with rainy weather. The total of 3 ounces daily contained more than 60,000,000 of bacteria at a moderate estimate (Meyrich-Lipsia). Compare with that oceanic or mountain-air with 0.2 bacteria in the cubic yard.

3. Vitiation through ventilation:

If too much dust comes in or the air gets too much warmed.

4. Vitiation through heating:

Dust particles get scorched (see 1 c); often mistaken for "dry" air.

Many of the substances above mentioned are toxic, and all of them, except N, O, and CO<sub>2</sub>, difficult of determination; but their amount increases fairly proportionally to the amount of CO<sub>2</sub>. CO<sub>2</sub> in itself is little obnoxious (150:10,000 in champagne-bottling departments a. t. l. prove harmless), and is simply regarded as ready index of the degree of impurity of the air and as standard, by which the efficacy of ventilation can be judged; 10 parts in 10,000 of air being universally adopted as admissible limit for acceptable air. The presence of the above products is perceptible to the sense of smell, for they cling at all objects ("School-odor").

## III.

To exclude evil influences, school houses have to be erected on elevated sites (no malaria nor typhus soil), in healthy surroundings (avoid neighborhood of factories, smoke and main lines of travel). Proper care has to be laid on good foundation (isolation), and drainage of the ground. Vaults for the working people during erection of building, to avoid contamination of soil! Materials all to be new and clean. Plain surfaces, no dust catchers, hardwood floors, abundance of direct light (germ killing), large halls and cloak rooms with ample ventilation. Low pressure steam or warm water for direct or indirect heating. Thorough scrubbing and washing; shoe-cleaning provisions. Large water supply, shower baths (promoting cleanliness and frequent change of underwear). Teaching of general and personal hygiene to spread knowledge among children.

## IV.

Two important figures have to be introduced here:

- (a) The cubic air-space allotted per caput.
- (b) The quantity of air vitiated by the individual in a given unit of time.

The cubic air-space will depend—

1. On the size of the room.
2. On the number of pupils there present.

The size of the rooms is nowadays more or less standardized, being determined by their reasonable length, width and height. The length is limited by the distances at which children can properly watch blackboard-work and which can be covered by the teacher's voice to approximately 35 feet; height, to approximately 14 feet; width, to approximately 23 feet. Higher stories would be too expensive; the number of stairs to climb unadvantageous to children's health, heating rendered difficult, finally teacher's voice affected. The width of a room depends on its height. Under ordinary circumstances school rooms are well lighted to one and one-half times the distance from floor

to window openings. If, according to modern views, windows are massed at the left length-side of the room, and their tops within a few inches from the ceiling, this figure will be  $1\frac{1}{2} \times 13\frac{3}{4} \times 13\frac{3}{4} \times 20\frac{3}{4}$  feet, and the total width of the room 23 feet, including an addition passage of  $2\frac{3}{4}$  feet between remotest desks and wall.

School buildings are used for a limited number of hours daily by a nearly unlimited number of children. The cubic air space allotted to the individual can by no means be large there.

A standard room, like the one above, of 23, 35 and 14 feet would have a floor surface of 805 square feet and a capacity of 11,270 cubic feet, and, from a medical standpoint, secure good conditions for 40 large pupils (11 to 16 years), or 54 smaller ones (6 to 10 years).

Offering 11,270:56 (54 pupils and teacher=2 pup.)=201 $\frac{1}{2}$  cubic feet respectively; 11,270:41 (40 pupils and teacher)=250 $\frac{1}{2}$  cubic feet as cubic air space to the individual.

It be our intention to keep the air of the room under the limit of 10 CO<sub>2</sub>:10,000.\*

A small pupil exhales 0.364 cubic feet of CO<sub>2</sub> per hour; a large one 0.616.

Let A represent the amount of CO<sub>2</sub> exhaled per hour by a child, X the supply of air to be found, and S the standard of CO<sub>2</sub> at which the air shall be kept. The air supplied contains already 4 p. CO<sub>2</sub> in 10,000. So we get the following equation:

$$A = S - 4 \quad X = 10,000 \quad A \text{ and}$$

$$\frac{10,000}{S-4} = X$$

for S=10, X=10,000 A=10,000 A=1666 $\frac{2}{3}$  A

A being=0.364 for a small child, X is=1,666 $\frac{2}{3} \times 0.364 = 606\frac{2}{3}$  cubic feet per hour.

A being=0.616 for a larger child, X is=1,666 $\frac{2}{3} \times 0.616 = 1,026\frac{2}{3}$  cubic feet per hour.

The minimum supply per child of 10 years is such 10 cubic feet per minute; child of 17 years, 17 cubic feet per minute.

For a standard of seven parts we have evidently to double these figures

$$S = 7. \quad X = 10,000 \quad A = 3333\frac{1}{3} \quad A.$$

## 7-4

The example assumes that the air is *diluted*; in fact, it is really *exchanged*, and the practical results surpass by far the theoretical consideration. In other words, to keep the air at 7-8p. of CO<sub>2</sub>, we need increase those figures of 10, respectively 17 cubic feet, only about 66%, that gives 17 cubic feet per minute for small children and 28 cubic feet per minute for large children as reasonable air supply, while 30 cubic feet have been generally adopted as the minimum supply permissible for the requirements of good ventilation by most of the other writers and are often asked for by law (Massachusetts and others).

Taking up our example, we find: 54 (small pupils)  $\times 17 \times 60 + 1860$  (for the teacher)=56,940 cubic feet per hour; 40 (large pupils)  $\times 28 \times 60 + 1860$  (for the teacher)=69,060 cubic feet per hour.

That is equivalent to 5-6 hourly air exchanges in the standard room.

We get thus approximately 70,000 cubic feet per hour and room.

A 14-room building would require 980,000 cubic feet for the rooms, while half of the amount, 490,000 cubic feet, is ample for the hallways, basement, assembly hall, manual training department, cloak rooms, etc., giving a grand total of 1,470,000 per hour. We will see later on that the requirement can be met.

\*Compare figures for hospital-wards 1200-1500 cub. ft., living rooms 1000-1200, barracks 600, lodging houses 300-400 cub. ft.

(To be continued in next number.)



## The Pima Indians.

BY ESTELLE REEL,  
U. S. Commissioner of Indian Schools.

One of the most interesting Indian communities in the United States is the Pima tribe, located upon a reservation in the south central part of Arizona along the Gila river. For more than forty miles along this stream they occupy the valley on both sides of the river, and are engaged principally in agriculture.

These Indians are distinguished from most of their kinsmen in the United States in many ways. As far back as we have any knowledge they have been enterprising and industrious to a degree seldom found among the aboriginal tribes of this country. From the first they have been friends of the white men, and during the early days of emigration often gave food and shelter to many an unfortunate pioneer and even convoyed caravans through the country of the murderous Apaches. They are a peaceable, good-natured people, ready and anxious to adopt the ways of civilization. Nearly all of them have adopted civilized dress and discarded the Indian customs. They have been farmers for centuries, and although their methods were necessarily primitive, they were able to support themselves in honorable independence and even assist their less favored and industrious neighbors. They never asked for government assistance and never received an appropriation until recent years.

They have a Court of Indian Offences, consisting of Indian judges, of which an Indian agent reports, "The three judges are as dignified in conducting their lawsuits as any men who ever graced the Supreme bench of the United States court. They are severe, however, and often the sentences for trivial offences have to be lightened." There is also a force of Indian policemen, who, clothed with government authority, as indicated by their bright badges,



Pima Girls in advanced grade after five years in Government school.

prove adequate for the maintenance of peace and good morals. The offences are remarkably few, considering the number of Indians, and the judgments pronounced by the court are always quietly submitted to.

The Pimas are a very dark skinned people, and they wear their long black hair unkempt and often matted; but they are tall, straight, and muscular, without corpulency. How they ever developed such powerful physiques in the hot climate of Arizona is difficult to understand. They are able to endure great heat and seem eager to obtain employment, and are preferred by the railroad officials over the ordinary laborer from the East.

In number they are about 4,000, and, in contrast with other tribes, are gradually increasing. Scattered all along the river valley and living in small adobe houses, they employ their time in cultivating their small farms and in attending

to their stock, consisting principally of cattle and horses, an occupation in which they have been quite successful.

The Gila river has always been the source upon which they depended for water to irrigate their land, but of late years this supply has been diminishing, owing to causes not exactly clear. Perhaps the best explanation is that the water has found an underground channel, and certain it is that there is a flow of water in the sands below the visible bed of the river. At all events, the water has vanished during a considerable portion of the year, and the conditions have grown so bad that now there is almost no hope for the Indians of growing anything like full crops.

To relieve their distress, congress at its last session appropriated \$30,000 to purchase supplies for free distribution among them. The superintendent of Indian schools, Miss Estelle Reel, made a recent visit to the reservation and, recognizing at once the evil and its remedy, has very wisely recommended that this appropria-



Teaching the Girls to cook in a government School.

tion be used in employing the needy Indians in work upon irrigation plants. She urges that the Indians are eager and willing to work, and to inaugurate a system of free distribution would have a very demoralizing effect upon them.

She proposes obtaining the requisite supply by damming up the water now flowing silently through the sands in the river's bed and diverting it into irrigating ditches. It is estimated that sufficient water can thus be obtained to irrigate more than double the quantity of land that these Indians at present require. If this



Teaching the Indian boys to cut down timber, cut fire wood and lumber.



Teaching the Indian girls to cut and fit and sew in a Government school.

plan can be successfully carried out, and there seems no reason to question its feasibility, it will certainly prove a great blessing to these Indians, rendering their farms again productive and making them once more independent.

As an illustration of the enterprise of these Indians, it is said that in the years immediately preceding and following the year 1890, they sold to the traders annually more than 6,000,000 pounds of wheat.

The great majority of the children attend the government schools in their vicinity, the principal of which is the splendid Phoenix Indian school with an attendance of 700 pupils, and many also attend the mission schools. Many Pima students are also scattered over the country in the various Indian institutions, and the famous Carlisle school has representatives from this tribe. Reports of their progress are almost invariably in words of praise.



Girls' Home—Sacaton, Pima school buildings

The Pimas are very favorably disposed toward Christianity. The Presbyterian and Catholic missions are meeting with much success, and a number of churches have already been built.

In his report for 1897, the United States Indian agent said:

"Since coming here I have seen and had built by and for Indians homes that many a white man would rejoice to own; furniture of all kinds; and buggies, spring wagons, carts, etc., for their mode of travel. All wear clean, nice citizen's clothing, and the girls are neat and industrious, and are filling places of industry in homes throughout this territory that fill me with pride to think of. Good farms, ditches, and fences can now be seen all over the reservation, and if water were sufficient, a more prosperous people could not be found in Arizona."



## School Administration Problems in the South.

BY S. F. VENABLE, ASHEVILLE, NORTH CAROLINA.

The city graded schools are worked under special and distinct charters, granting distinct and special systems thoroughly fitted to local application. All of the surroundings being made attractive by beautiful, well fitted up, and comfortable buildings, with ready access to them, a carefully selected corps of teachers in each school, the pupils, in a concentrated population, are easily brought together, readily taken care of, pushed forward by highly developed graded systems. The schools of each city march in harmony to the step of progress. Conventions are held; associations meet together to discuss the delightful problem of city school systems, with charters prepared beforehand, granting every apparent necessity, passed by sympathizing and compliant legislatures, easily amended when so desired, and all goes "merry as a marriage bell." But amid all of these rejoicings and congratulations in regard to the wonderful progress made by the graded systems of cities and towns, a note, discordant perhaps, strikes the ear. The mind is taken from regarding, in fancy, the beautiful buildings with all of their comfortable fittings, the teachers in their beautiful rooms, crowded with well dressed and well drilled pupils, and carried to the oft-time log cabin, or small frame building, the scattered population, muddy and almost impassable roads, the children plodding their way to, or sitting around the stove of their well ventilated room, the teacher in a split bottom, home made chair of state, dispenses education, in one room, to probably eight, and possibly ten grades a day, with a minimum of thirty recitations in five and one-half hours of real school work. "Dost thou like the picture?" It is, however, a true picture, and one that can be readily seen in many southern states. Well might the New York Independent say: "The Hon. W. T. Harris said, one year ago, that no educational problem began to compare in magnitude with that of the rural school." This is true, and no one conversant with the discussion of educational problems can for a moment doubt it. As representing a rural board, in a not densely populated state, this discussion will be on a line of School Administration Problems with reference to state systems of rural schools.

As the value of board administration depends more for its efficiency upon the powers that may be granted to the boards by the laws made for the conducting of the public school systems in the different states of the South, it appears that the most profitable part of this discussion might be retrospective, rather than prospective. The capacity for progress by boards must, necessarily, depend upon the powers granted them by the existing operations of the system under which they may have to work, either to repress existing evils, or to take steps in advance wherever the opportunity presents itself. Taking this view of the matter this discussion will be upon the necessity of giving full powers to boards to apply reform, wherever it is needed, whether from antagonism of locality, existing irregularities or from any cause that may exist, that would so hamper them, as to prevent them from keeping step with the educational progress of the day.

Some of the chief opponents against which the educational system of the South labors, arises from the long interval between legislative sessions, and in some of the states, the short term of session; the want of care in the selection of the legislators by the people, those most interested in having a good and thorough system; and by the legislature itself, in selecting those (the committees) to whom they confide the proposed improvements in the school system of the respective states, and, above all of these, however, is the involvement of everything connected with school problems, with the fear of offending the masses. Every legislator who has, in any way, aspirations for political advancement, realizes that, in every step, he must be careful not to tread on any ground that might be at all liable to give offense at home, or rather as is often heard expressed on the subject, "such action would affect popular local authority, which would be objectionable to our people, who believe in Democratic government." Such is the fact in the matter, that the educational systems in some of the southern states, are, from the political trammels under which the law makers work, in many respects as crude as they were in the origin of the system. Such utterances may be esteemed unpatriotic in regard to the sections discussed, perhaps so, but it really appears far more unpatriotic to repress a truth, when pertaining to matters of such vital importance as those which called together this grand assembly, which should recognize no special locality, "No North, no South, no East, no West," but, in the one great whole, work for the good of all, as in that good depends the progress, growth, and permanency of American civilization. Never can the whole advance in unity and harmony until all defects are remedied, all excrescences are removed, all deficiencies are supplied.

This body was not called together to cover up local defects, by way of flattery, to extenuate in a soothing way, so as to arouse no ill feeling, but work to have a

good time generally. The grand object was, and should be exclusively, to investigate systems, and search for the causes that retard progress in any section, and suggest the remedies that may be needed. The progress of the age is upon us and everything that may be in the way should by all means be found, shown fully to the light, and every possible suggestion of reform should be made in any system and of any state of the South, when want of proper progress is seen. One of the special evils existing in those states of the South that radiate, as it were, from the Appalachian System of Mountains, Virginia, North and South Carolina, Georgia, Alabama and Tennessee, is that in their school arrangements they lose sight of the fact of the great diversity of climate and formation, and endeavor to have the same system applicable to all localities, although they present so many distinct and apparently insurmountable climatic and geologic opponents. Consider for a moment the states of North and South Carolina with their entirely distinct climatic and geological sections—the low country or sea coast section—and the up country, or Piedmont plateau—the Appalachian plateau. Yet, the educational system without deference to those opposing elements, try to impose the same system of schools in all; in many localities the arbitrary execution of which, excludes thousands of children from the very schools that are created for their benefit. For children of any age or size the summer of the coast section is totally unfitted for schools, while in the other extreme, the Appalachian plateau, from the enforced winter schools, in deference to the necessities of the low country, thousands of children under ten years of age are excluded from attendance, close investigation showing that at least two-thirds of those under ten and over six are entirely so. In one county in North Carolina 2,200 out of 3,300 failed to attend during a seven months' term of the past year. This is the principle cause of the number of people in the Carolinas who cannot read and write. They being, in a great measure, an agricultural people, especially in the mountains, and the farms being small, children passing the age of ten years without attending school being required to work them, a large proportion never attend school. This defect, a vital one, no board can possibly contend with and the problem can only be solved by a legislative body deeply impressed with the vital importance of properly solving it. This was what was laid down in the opening of this discussion as the antagonism of locality, one of the most fatal bars to progress in the school administration problem. Another great opponent to a better state system is, in some states, biennial sessions of the legislature, together with limited terms of sessions at the state's expense, in which, the necessarily immense accumulation of business, the filling of the various political offices, politics really overshadowing everything else for a while, an apparent indifference (possibly real) appears in regard to the investigation of matters connected with educational progress. This, with the fear often of injuring personal aspiration for office, together with a want of proper firmness in taking hold of matters, as the necessity of the case demands, has left systems of state education in almost as crude a condition, as when first originated. The result is apparent in almost every department, a fatal obstruction to board administration progress in almost every department of the system given to guide them. They and their superintendents have little or no authority over anything connected with the system, except to distribute the funds to the districts, to be, in common parlance, "taught out," while really the school is, in an equal manner, as effectively "taught out." The superintendent examines the teacher, whether he or she has any faculty whatever for teaching, or ever has taught, provided they can present testimony of good character, and get marks of grade, on examination, over 80 or 90, second or first grade, they must necessarily receive a certificate of grade, which at once becomes, without the power of superintendent to interfere, a passport to any committee to employ, without any knowledge whatever of the party employed. In this case the superintendent is merely an examiner, and although by title of office held responsible for the character of these schools, has not one particle of authority in the matter, the question of fitness is to be settled by a committee, who may possibly rely only on the certificate as a perfect testimonial of fitness.

A distinguished state superintendent, a man devoted and consecrated to his official duties, in urging upon a committee on education to give the proper authority to county superintendents, received the reply, "If we could have the county superintendents that you have in mind, then it would be safe to give them so much authority, but the average county superintendent might abuse so much authority." With this flat going forth year after year, from the law making department of the state, evidencing such a want of firmness and faith, such a want of proper sense of what was due to honesty and integrity, what must the result be! Ten good men could save Sodom and Gomorrah, but ten or twenty, or thirty progressive county superintendents could not save a state for fear that others, by giving them proper powers, might do injury. All must remain in the anomalous condition of boards of education that cannot di-

rect, of superintendents that cannot superintend. It is to be feared that the reason behind this was the fear of what the people at home would think. The cry will arise—what educated my father and grandfather was good enough for me, and is good enough for my neighbor's children and mine, and must not be changed.

This power behind the election throne is one not to be tampered with, it is a power and a fearful one.

These opponents to school administration are terrible problems to discuss, yet they are true. They are terrible, fearfully so! For while these barriers remain, year after year, thousands and tens of thousands of children have grown up, and are growing up, either in total ignorance, or with a partial education, which is a disgrace to the states in which they exist. They are true! because they have been and are still on the statute books of states for years and years, with little or no progress for the better. So long as to almost lead to a feeling of despair that anything better will ever come. Yet this cannot be! This grand assembly is of itself an evidence of it, not only this alone, but everywhere over the country, men and women, devoted heart and soul to this cause, are assembling; these things are being carefully, prayerfully discussed; there is a consecration of purpose in all this, and among all of these that is becoming, and in the near future will be irresistible. The conquest over ignorance is inevitable. The fight is on! The opposition to reform is bitter and vindictive, but, that "truth is great, and will prevail," will be fully evidenced in this contest. The people must and will be educated, that finally must come. But the important matter before us is to educate the legislatures up to a full sense of their duties in the question of public school reform. To bring them to see that to accomplish what is absolutely necessary, the proper education of the masses, they must resolve to make every sacrifice, to consecrate themselves fully and entirely to their duty, putting everything behind and out of sight but this greatest of all duties facing the various legislatures, not only of the South, but of the North, the East and the West. All are involved in it, and to accomplish the results due to progress, all must work together, mind, heart and soul, with a determination to succeed, and the result is certain. The auspices at the opening of the coming century are grand, and lead us to hope for everything desired. But supineness will not bring it about. Aggression properly conducted is needed, and, with this, persistence and purity of purpose. With the clearing of the retrospect, the proper adjustment of systems, and adaptation of systems to localities, the school administration problems, not only of the South, but of the entire country, that are prospective, will be easily solved. These evils will not be easily remedied in the near future. A hard fight is on hand, every educator must nerve himself to the contest at the wind-up of this century. Let it be so strong, so aggressive, that it will burden but a few years of the coming century, and victory will soon hover over our banners.

### The Importance of Ventilation and Shaded Light in School Rooms.

From time to time we have called the attention of our readers to the inadequate facilities afforded by the ordinary method of hanging shade rollers to provide properly shaded light and admit pure air from top of window in overheated school rooms, especially where no provision has been made for ventilation. It is quite impossible to open the top of a window for the purpose of ventilation where shade rollers are hung from the top, as the wind quickly destroys the curtain. Again it is just as important that pupils should receive the light from the upper portion of window, as it is then quite possible to grade the amount of light required, so as not to in any way injure the eyes. Oculists all agree that light introduced from the top of a window is the correct method and should always be employed in school rooms. Those in charge of public buildings should carefully investigate the merits of the Knapp Shade Adjuster, which provides fully for both ventilation and shaded light. This article is durable, elegantly made, easy to put up and overcomes all objections heretofore had where fixtures have become clogged with dust and possible rust. The Knapp Shade Adjuster will work freely at all times without being cleaned, and, in fact, will work freely on rods completely covered with rust. Mr. Knapp has made a study of shaded light and proper ventilation, and from a scientific standpoint, as well as mechanical, he has produced a shade adjuster which should be in every home and school room in the land. Manufactured and for sale by Fred H. Knapp, 44 Randolph street, Chicago.



## School Architecture.

By GEO. F. LORING, of Loring & Phipps, Architects,  
Boston, Mass.

The relation between architecture and hygiene is close and vital. Building, the parent of architecture, owes its creation to the desire of man for more hygienic shelter than was furnished by forests or caves. After the erection of his own hut his belief in the humanity of the gods led him to provide the same comfort for them, while his reverence caused him to change from mud to wood, and to clay, and to stone. By the erection of temples the æsthetic element was introduced and developed, architecture being thought of in that age only as proportions and detail.

Why human energy should take this direction, instead of developing the physical part of man, may be found in the superstitious regard for the body itself.

All the functions were thought to be controlled by superhuman forces, the mind being controlled by physical and religious abstractions, tending to turn the same away from the body, and could but produce its own embodiment in architecture; the greatest achievements of architecture have always been identified with the most mental and spiritual activity. The greatest triumphs have been in its application to the arts and industries. If our architecture is true, it will be influenced by our activities and partake of the influences of the time.

Our modern steel buildings, with the improved mechanical and scientific apparatus, to a great extent typify the national characteristics and the life of the times. A true architect is born, not made; and he will not cast aside these facts, or it will be looked upon as absurd.

Hygiene has been the last of all branches to develop, due to superstition and lack of knowledge; the microscope and the study of specialists has brought to our minds facts that have been concealed, and laid for us a foundation on which to build; the application of these principles as applied to building of school houses is the subject here treated. In this northern climate and congested population, the average individual spends at least 90 per cent. of his entire life indoors. The sanitary conditions of our buildings, therefore, must exercise a powerful influence on the general health. The best means for a study of these problems is afforded by the public schools.

The large number of people of practically the same age, for the same length of time, under the same conditions, placed in a given area, make it possible to deduce much more reliable data than can be done in any other way. Then, also, children, as a rule, are free from chronic diseases or other diseases found in adults.

Some one has said that a child may be regarded as a very sensitive hygienic instrument, responding quickly to changes and environment.

Following this line of thought, I have made a study of school construction from the standpoint of hygiene, as well as architecture.

Sixteen years ago school buildings were erected with the idea that all that was required was the housing of so many pupils, protection from the weather, and so much floor space, all at the least possible cost. At about the time mentioned I began an investigation of this subject, being assisted by a bright man who was a principal of a school. Much has been written on this topic, but my remarks are based on actual experience in this line.

Given a committee of fairly intelligent men, the first business instead of the last, which is the usual method, should be the selection of the architect. This should be done before any site for the proposed structure is purchased. The

location at a suitable point within the school district for convenience and accessibility is acknowledged. The exposure of the school building is of utmost importance, and preferably the lot should face either to the north or the south; early side of the structure without too long corridors.

We are advocates of the sun buildings for class rooms; we do not agree with those that advocate northwest or northerly exposure, when you consider the number of days in the year when the sun is obscured; that the sun is nearly vertical over us at its highest point in the summer time; that for spring, fall and winter days the sun is necessary for health; that east and west exposures in the morning and afternoon are as bad, in the opinion of those with whom we differ, as the southerly, and that the amount of fuel necessary for warming fresh air for northerly rooms is more by at least four tons per room than for southerly ones. Sunlight is the only disinfectant which sustains man, while it kills the microbe. We all know the agreeable sensation of direct sunlight, and you cannot but agree, from the standpoint of health and economy, that our conclusion is correct. We believe that the body is of as much importance as the eye; with the windows properly screened against intense sunlight, by use of curtains to each window in two parts, with the rolls at the meeting rail, the top running up and the bottom one down, the light can be controlled.

We show herewith a sun-dial for the latitude of Boston, giving winter and summer sun extremes; by placing the arrow on the place of lot same as the North point shown in said lot plan one can see at once the moving of the sun during given hours.

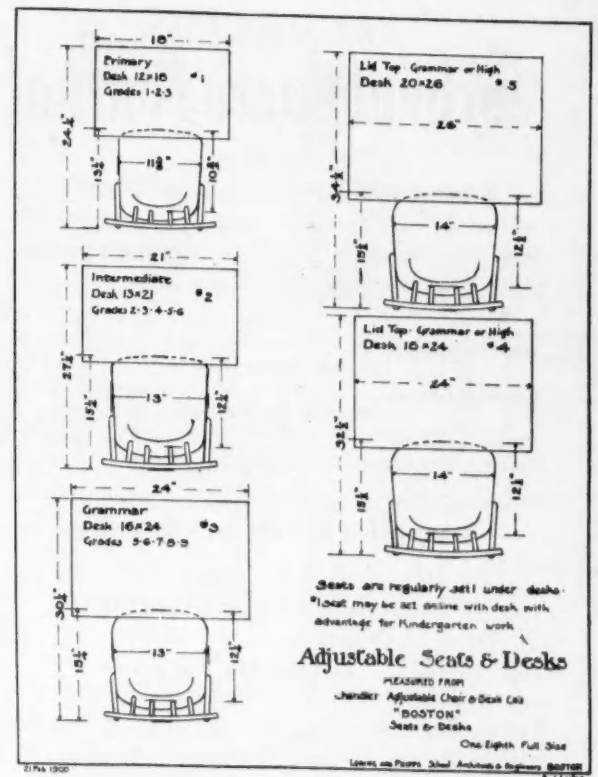


All windows in class rooms should be square-headed, without transom tops, which cannot be properly curtained, and without the bar across the transoms, as they throw strong shadows over the desks. The light from the upper part of the window is most valuable, and should not be made circular or in the Gothic style.

Double windows, or four runs of sash, should be built in on the cold sides of class rooms; they have the advantage of preventing the frosting of the glass surfaces, and chilled air will not flow downward on the bodies that happen to be seated in the outer sides. With double windows the wind pressure on the walls of the exterior does not affect the movement of the air in the heating and ventilating ducts.

The interior lighting of corridors and location of stairways can be disposed to best advantage with the style of the building mentioned.

The space surrounding a building, and within the bounds of the property lines, should be at least twenty feet.



A lot where the grade of the land falls, or so graded as to fall to the rear, is much the better for the basement and for access to the same.

Except for high schools, no building should have more than two stories of class rooms; by spreading the building over the ground, instead of vertically, we gain in breadth, architectural effect, lessen the danger to health of young persons by loss of energy climbing stairways and lessen the danger from panics; the additional cost of a building two stories high as to one of same capacity three stories high is so small that it is not worth considering.

In fixing the heights of stories we are governed some by the amount to be expended; the proper height of basement should be 9 feet 6 inches to 10 feet. The light in rooms on the second story is always superior to that on the first, and we therefore increase the height of the story and of the glass surface of the first story to equalize same; in any event, the window heads should be finished to the top so no shadow can be thrown on the ceilings; the sill of windows should be 3 feet 4 inches from the floor. The proportion of light to floor area of class rooms should never be less than one square foot of glass surface to six square feet of floor surface, and from experience we can say that this holds good for rooms thirty-eight feet wide, lighted from one side only. Within the limits of a city where adjoining buildings are about twenty feet from exterior walls, we should increase our glass in proportion of 1 to 5.

Every room should receive the direct rays of the sun for some part of the day. The special arrangement of curtains before mentioned we consider better than dusty and rattling shutters; the direct rays can be wholly or in part excluded, if desired; in direct sunlight the rooms up to the limit mentioned are sufficiently bright to allow the reading of extremely fine print without exertion; at other times the shades are not required.

The worst light is from the front; the best light is from the left side or left side and back; as the teacher suffers from the light as well as the pupil, and is placed necessarily in the opposite direction, we believe that the desk should be placed on the floor, in such position as may suit the individual taste, supplemented by swivel chairs. The ceiling plays an important part in the distribution of light, and should be white. We have used stamped metal ceilings painted white, but they are objectionable on account of the many shadows they throw; the paint soon

(Continued on subsequent pages.)

# THE AMERICAN School Board Journal

DEVOTED TO

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## SHELVING SUPERINTENDENTS.

The following superintendents were removed from their positions this year: H. A. Wise, Baltimore; W. B. Powell, Washington, D. C.; E. Benjamin Andrews, Chicago; J. A. Smith, St. Paul; David K. Goss, Indianapolis; H. C. Weber, Nashville; Milton Noyes, Rochester; George E. Bullis, Oswego; J. B. Estabrook, Racine, Wis.; F. R. Hathaway, Grand Rapids, Mich.; Samuel T. Dutton, Brookline, Mass.; E. S. Cox, Sidney, O., and others.

The following superintendents have been or either will probably be reappointed under the fire of opposition: E. P. Seaver, Boston; L. H. Jones, Cleveland; Wales C. Martindale, Detroit; F. Louis Soldan, St. Louis; William H. Maxwell, New York City, etc.

This makes the present year, so far, a most remarkable one in the number of changes made in city superintendents. To our knowledge, no similar period has witnessed so many important changes. The wholesale removal of city superintendents is more remarkable in that it has effected so many of the principal cities of the United States. We have not pretended to give the names of those in the smaller towns because they have been too numerous.

It may prove interesting, as well as profitable, to inquire into the motives which have caused these changes.

The apparent reasons for the removals are varied. One man has been indiscreet, the other impolitic; this one too conservative, that one too aggressive. One superintendent has displeased the politician of the board, the other has offended the friends of would-be teachers, another has grown too old. One superintendent was dropped because he was weak as a schoolmaster, but too strong as a politician; the reverse killed still another.

The real reasons in a few cases may be traced to politics in the board, personal prejudices, etc., which are apt to play too powerful a part in any community.

The first sensation, which possesses one upon contemplating this upheaval among educational workers, is one of alarm. Can it be possible that so many schoolmasters have suddenly come to a realization of a deplorable state of affairs? It is either one or the other, or else a mere coincidence that a number of removals have bunched themselves together.

Again, these changes may be construed as indicating either a most hopeful or else a most deplorable condition among school

boards. It could hardly be possible that nine large cities had suddenly risen to the realization that their superintendents are incompetent. If so, how long have these men drawn pay for insufficient service? How long has it taken the board of education to make the discovery? Where has been the greatest amount of incompetency—with the board or with the superintendent?

School boards are not always actuated by the highest motives. We have always held to the belief that in most cases a species of good hard sense determines the employment or dismissal of a superintendent. Blunders are the exception.

Whatever the animus may be, the changes are significant of a degree of restiveness on the part of boards that may work for the better or for worse. Collectively, the great number of important changes in so brief a period does not, in our judgment, point entirely to a wholesome activity. It is almost safe to assume that they include some gross blunders, and in the removal or selection of a superintendent no school system can afford to blunder.

## WAR ON VERTICAL WRITING.

The pendulum which swung vertical writing into the schools of this country is now swinging back with, perhaps, an enfeebled, but yet perceptible force.

The superintendents of Greater New York have decided that the vertical system should be abandoned and the slant system reinstated. This action leaves the principals, however, free to choose for themselves.

The course pursued by a large city always wields an influence over the smaller communities, and the attitude of the New York press, classifying vertical writing as a fad, was readily gobbled up by other newspapers. If a large cosmopolitan newspaper were to designate the three R's as a fad, a host of smaller journals would at once chirp around the proposition with approval. Small cities are apt to imitate the action of the metropolis.

That a reaction would set in was to be expected, but where one board has abandoned vertical writing, ten have approved it. The thorough test made in many cities by conservative school boards and able schoolmasters would incline to the belief that vertical writing has come to stay. The judgment of a superintendent in New York may be no better than that of the superintendent of Oshkosh or Kalamazoo. He may reflect the opinion of the teaching forces, or the notion of the business community, or his own prejudices. The assumption here must, of course, be that the New York city superintendents have expressed their honest convictions against vertical writing, and that they have not been unduly prejudiced.

New York does not decide the fate of vertical writing. The opinion of one man, or any one set of men, does not necessarily determine whether the youth of the land is to write the vertical or the slant system. The action of one school board may be reversed by a succeeding one.

The grounds upon which the vertical system was introduced are physiological and hygienic. Legibility, speed and grace of form are attained. To class the system as a fad is absurd.

## THE GRAVEYARD OF SUPERINTENDENTS.

The city of St. Paul, Minn., has been referred to as the "graveyard of superintendents." In nominating Prof. Irwen Leviston, the present superintendent of that city, Bernard Zimmerman, a member of the school board, uttered the quotation without attempting a denial, explanation or excuse.

The composition of the board, as far as the character and ability of the members are concerned, is like most other school boards. It embraces some of St. Paul's best citizens. But it is a miniature affair of five members. Its whims and hobbies may be swayed by three men. One man, possessing powers of persuasion, may control the entire board for good or evil.

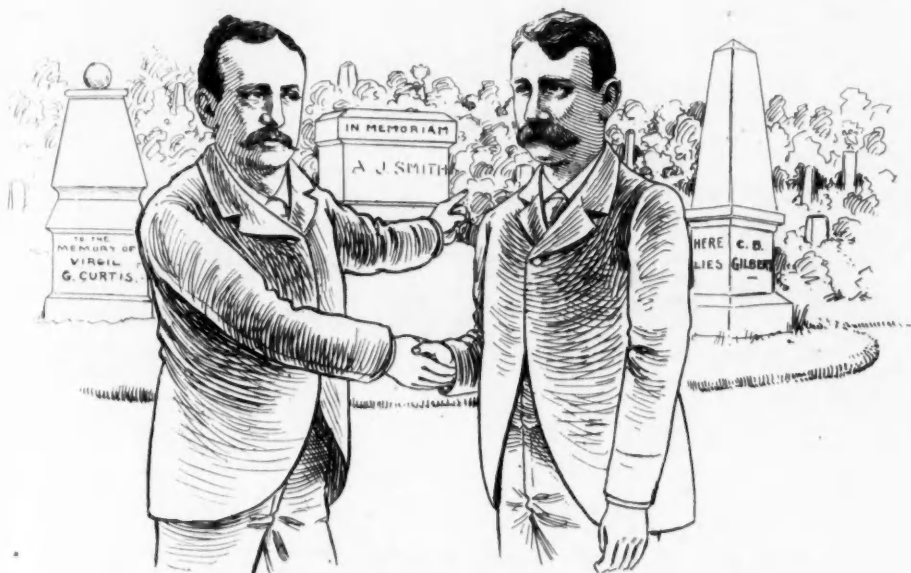
Here is an illustration of the possibilities of a small board: The superintendent may be at the mercy of one man. If that one man is vindictive and unscrupulous, and the superintendent conscientious and fearless, the result is easily imagined. The superintendent's position is at once imperilled. Public opinion may hold him in place for a time, but the board will eventually decapitate him.

We do not mean to infer that St. Paul's school affairs have been dominated over by an unscrupulous man. The fact that St. Paul has been dubbed a "graveyard for superintendents" may be the result of a series of unavoidable conditions. The removal of every superintendent may have been prompted by proper motives. This does not, however, detract from the argument that wherever small boards exist, the things indicated are more likely to happen. With larger bodies the pendulum of opinion swings with a firmer gait. All transactions are subjected to greater discussion. The percentage of superfluous talk may seem greater, but the quantity of good horse sense is also vastly increased. Dickens says there is safety in numbers. This applies to school board membership with considerable force.

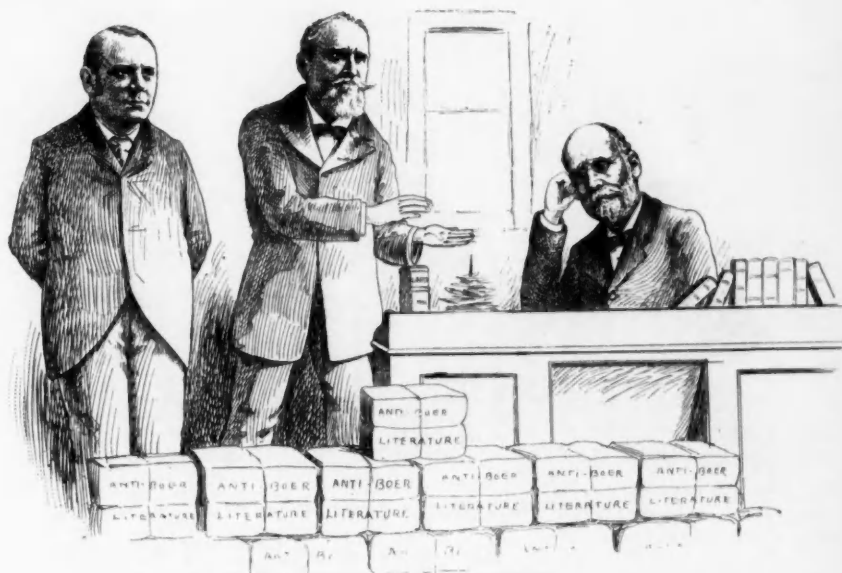
In the discussion of the numerical strength of school boards, it must be noted that superintendents usually stand for smaller bodies. They always remember the disturbers on the board, and apparently reason that any reduction of the school board membership will also reduce the number of disturbers. This may be true, but the number of good men is reduced in the same proportion. The argument that in small boards a better class of men is obtained is not borne out by the experience of the past few years. The same power conferred upon fewer men—hence increased power by virtue of the reduction in numbers—does by no means heighten the motives of men, nor lessen common abuses. Indiscretions have been more boards. The exclusiveness of small boards has given better opportunity for intrigue. In the nature of things larger bodies are subjected to greater publicity.

Never have boards been smaller in the large cities of the country than they are now. Never has there been a more disastrous year for superintendents than the present. More removals of competent men have been attempted than in any one similar period. The position of nearly every superintendent of a large city school system has been threatened. The downfall of many was accomplished.





President Bernard Zimmermann greets Supt-elect Irwen Leviston to the St. Paul school system, "the graveyard of superintendents."



Dr. Wm. T. Harris, U. S. Commissioner of Education, is made the subject of praise and criticism of the leading political parties.

### THE ATTENDANCE AT CHARLESTON.

In our last issue we mentioned the attendance at the Charleston meeting. The figures quoted were based upon an estimate made on the last day but one of the meeting. Secretary Shepard now reports that the enrollment was 2,815. Of this number 546 are active and 2,269 associate members. This enrollment is distributed as follows:

	Active.	Associate.	Total
North Atlantic States...	114	160	274
South Atlantic States...	82	850	932
South Central States....	68	373	441
North Central States....	247	820	1,067
Western States .....	35	66	101
Total .....	546	2,269	2,815

The state of South Carolina furnished 673 members. The five states outside of South Carolina furnishing the largest attendance are: Illinois, 348; Ohio, 149; Georgia, 128; New York, 107; Indiana, 106; Missouri, 104.

It is worthy of note that there were 546 active members enrolled at the Charleston meeting in a total of 2,815, while at the Los Angeles meeting in 1899 but 530 active members enrolled in an attendance of 11,544.

To the total enrollment at Charleston should be added 1,800 active members not present whose dues will be paid, bringing the total enrollment for the year up to, approximately, 4,600. Some increase of this total may be expected from additional new active and associate memberships.

All active members are urged to co-operate in increasing the membership, especially the active membership, among their associates.

The distribution of Anti-Boer literature from the Bureau of Education at Washington has aroused some bitter criticism on the part of the partisan press. It is claimed that this literature is designed to have some bearing upon the political campaign this fall, and that Dr. Wm. T. Harris had yielded to partisan influences in permitting his department to be thus used. The explanation given by the chief clerk, in the absence of Dr. Harris, who is in Europe, is to the effect that an old English friend of the commissioner had requested the distribution. The cost for mailing, it is claimed, was borne by Dr. Harris, and the addressing done by one of the clerks after regular office hours.

The real beauties of the much lauded "Cleveland System" of school administration are gradually developing. School Director Bell has discharged a score of school janitors without a hearing, and has hung up the reappointment of Superintendent Jones for several months. Public opinion only has prevented the actual removal of the superintendent.

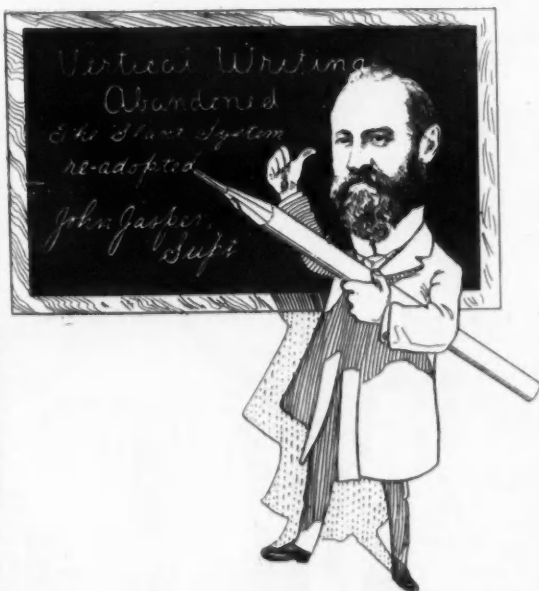
This illustrates the possibilities of the one man power plan in school administration. If the one man is perfect the plan works satisfactorily. If he is not its weakness comes to the surface. Yet the defenders of the plan, Draper, Andrews, Soldan, Butler, etc., notwithstanding the fact that is paternalistic and un-American, continue to promote it. Superintendent Jones who praised it in times past may have settled down to serious reflection.

Vicksburg, Miss. An order has been adopted to the effect that hereafter no married women will be eligible as teachers in the schools.

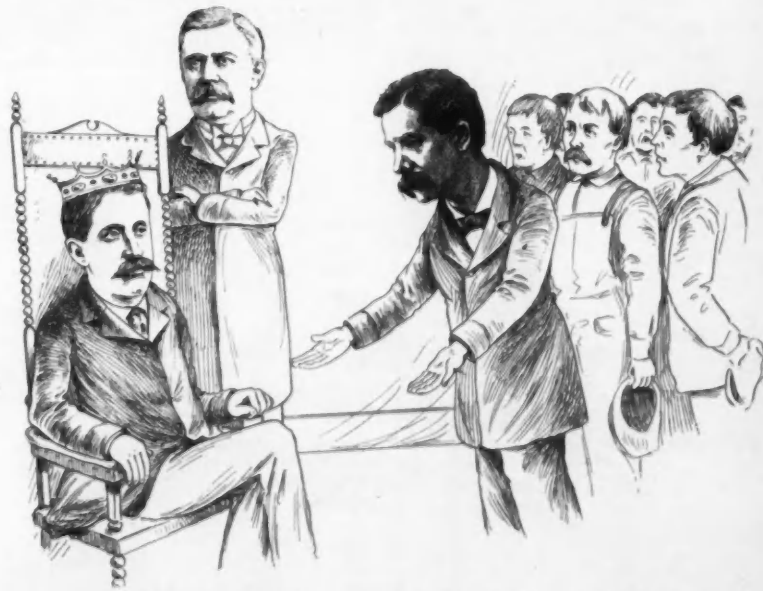
Jersey City, N. J. It has become an unwritten law with the board to consider the marriage of a woman teacher equivalent to her resignation.



Fifty school houses given over to G. A. R. Encampment at Chicago last month.



The Superintendent of the New York City schools makes an important announcement.



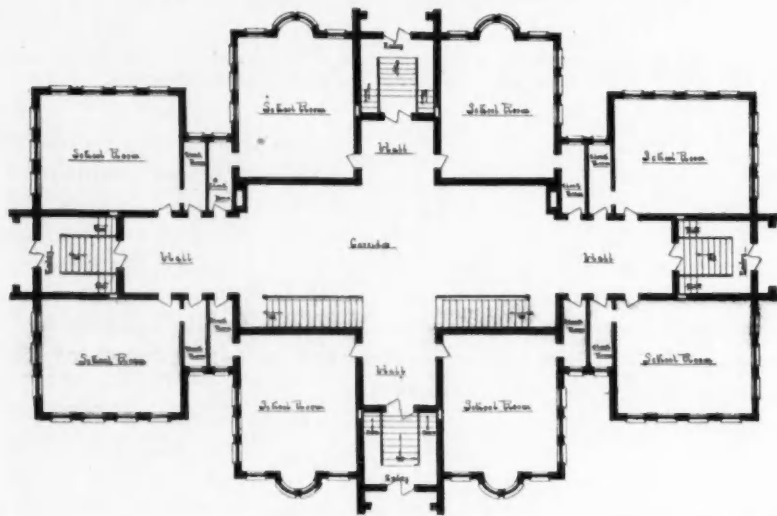
Supt. L. H. Jones and janitors pleading with the School Czar of Cleveland, the handiwork of Dr. A. S. Draper.



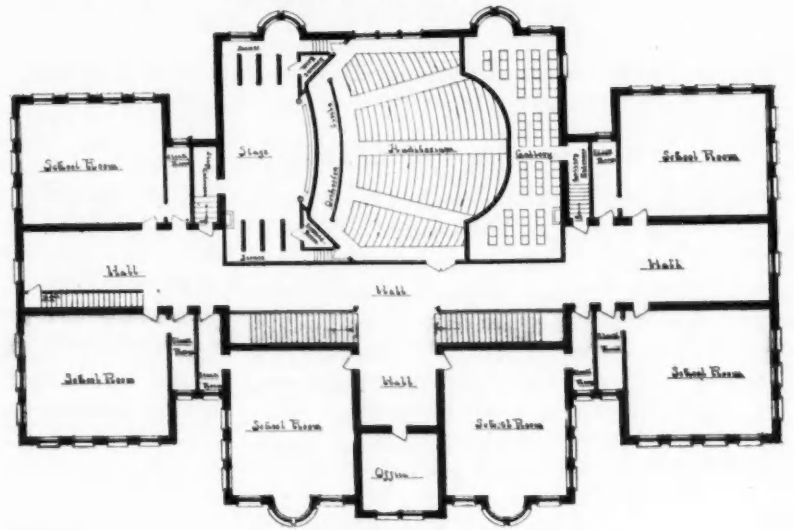
L. E. Burkert, Archt., Greenville, O.  
FRONT VIEW, HIGH SCHOOL BUILDING, ALEXANDRIA, LA.



By Loring & Phillips, Archts., Boston.  
SCHOOL HOUSE DESIGN.



FIRST FLOOR.



SECOND FLOOR.

FLOOR PLANS FOR HIGH SCHOOL, ALEXANDRIA, LA.

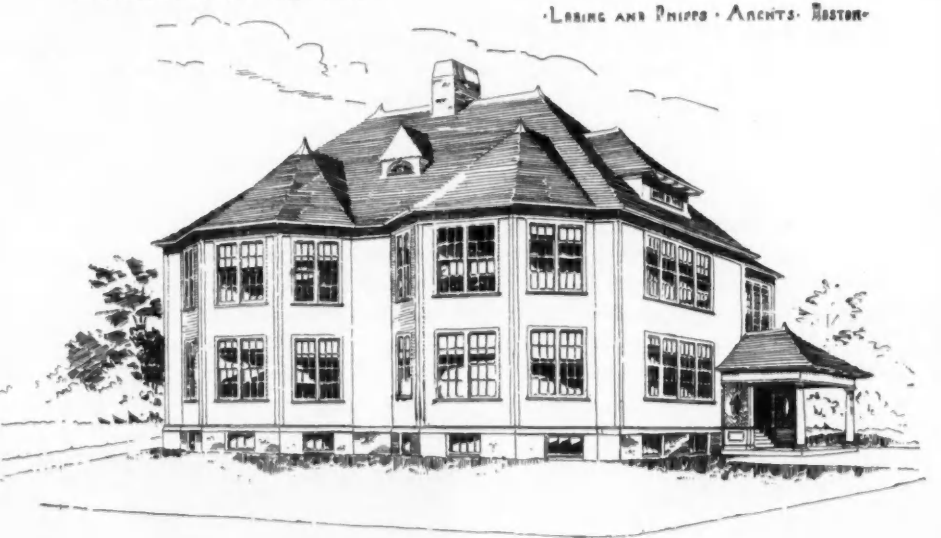
L. E. Burkert, Archt., Greenville, O.

SCHOOL HOUSE - MELROSE MASS.

By LORING AND PHILLIPS - ARCHTS. - BOSTON.



C. C. Chipman, Archt., New York City.  
NEW SCHOOL NO. 13, YONKERS, N. Y.



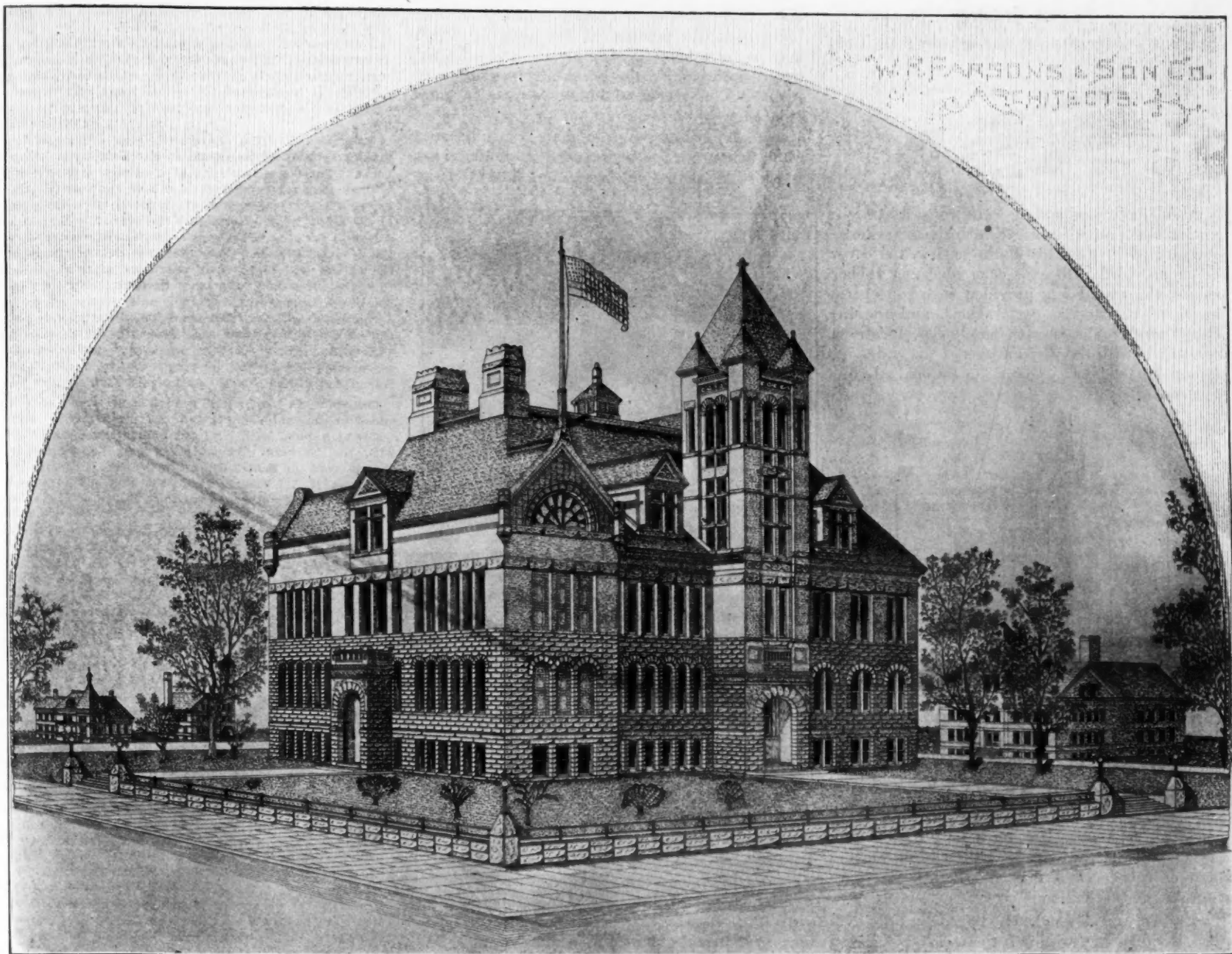
SCHOOL HOUSE DESIGN.

By Loring & Phillips, Archts., Boston.



C. A. Kruttsch & Co., Archts., Indianapolis, Ind.  
NEW 8 ROOM SCHOOL, WASHINGTON, IND.

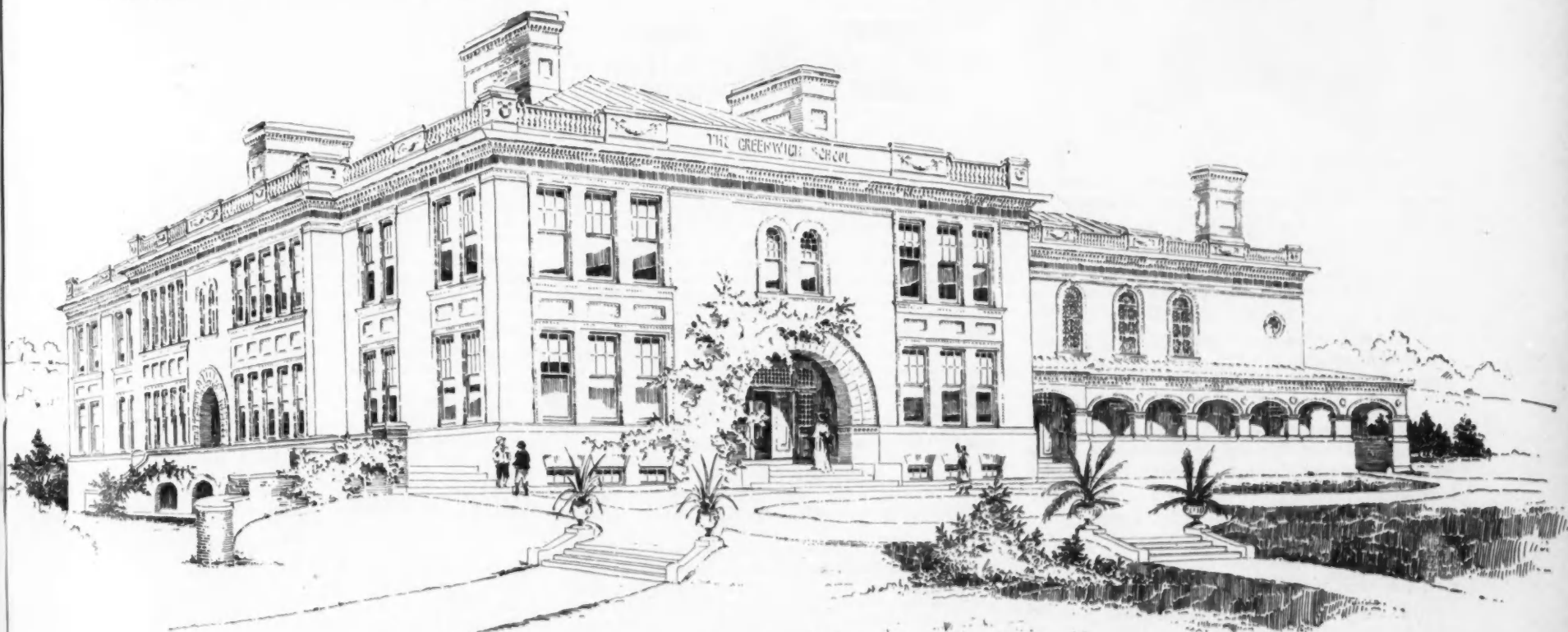




Wm. R. Parson & Son Co., Architects, Des Moines, Ia.

★ HIGH AND GRADE SCHOOL. 550 CAPACITY.

The above building, illustrated by exterior perspective, is designed for the accommodation of both grade and high school work. It contains eight rooms devoted to grade work, which may be varied in size to meet the requirements of the community in which located. The high school department is largely located on the first floor, and consists of a study room capable of accommodating from 120 to 180 pupils, with all the necessary recitation rooms, laboratories, library, office, and everything that goes to make up a complete and modern high school. All points of modern sanitation have been carefully considered in the designing and planning of the building, and we regard it in many ways superior to a number that we have built.



THE GREENWICH SCHOOL · GREENWICH, CONN ·  
South East View.

Loring and Phipps Architects · Boston.

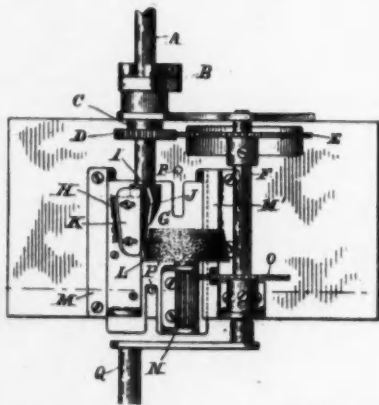
### Patents Granted.

SCHOLAR'S COMPANION. Charles Schneider, Cold Spring, Ky.



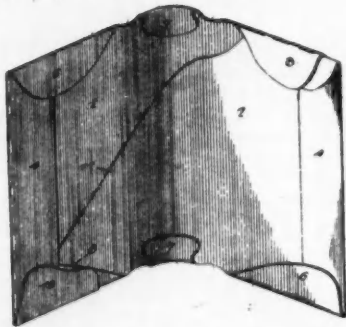
A scholar's companion containing a stationary casing and a semi-cylindrical cover therefor pivoted in the ends of the casing, the cover being provided with ends each inclosing rubber sheets, the ends being provided with concentric series of registering perforations, and the inclosed rubber sheets with smaller perforations concentric with the perforations of the ends.

PENCIL-SHARPENER. Moses G. Cook, Lynn, Mass.



In a pencil-sharpener, a rotating pencil-clamp, a sliding carriage adapted to be controlled by the operator and having mounted upon it a wood-cutting device and a rotating grinding-wheel, mechanism for rotating the pencil-clamp and grinding-wheel, including a spur-gear, said wheel having a long pinion engaging the spur-gear whereby the sliding movement of the carriage does not detach it from the rotating mechanism.

BOOK-COVER. Ellsworth M. Page, Buffalo, N. Y., assignor of two-thirds to Robert L. Clark, Munnsville, N. Y.



A book-cover of the character set forth, comprising separate sections of duplicate contour adapted to be joined on a diagonal line across the back of the book to which they are applied and having intermediate tongues for engagement with the hinge portion of the book, recesses extending inwardly on opposite sides of the intermediate tongues and having the adjacent edges of outer and inner tongues gradually merging thereinto.

EDUCATIONAL SYSTEM. Albert E. Osborne, New York, N. Y., assignor to Underwood & Underwood, same place.

A map having thereon provisions indicating which portion of the country may be included in a single view, a point of view and which portion of the country is visible from such point, which portions of the country may be included in a single view and also the point of observation for such view, which portion of the country may be included in a single view, the point of observation, and the direction therefrom, of such view, and the extent of such view. It is

also a map containing a pair of converging lines indicating the portion of the country which may be included in a single view, and an additional indicator of the point of observation of such view, a graphical index, for use in combination with descriptive matter, consisting of a map, provisions on said map for indicating which portions may be included in single views and also the points of observation of said views,



and corresponding reference characters on corresponding view-indicators and point-of-observation indicators, in combination, matter descriptive of a subject, and a map of the same subject, said map containing provisions for indicating which portions may be included in single views, and corresponding reference characters on the descriptive matter and on the map indicating the views described in certain parts of the descriptive matter, a set of "trip-pictures," a map of the country covered thereby, and corresponding provisions on said map and pictures indicating which portion is indicating the portion constituting the sky-lines of views in pre-determined directions.

PREPARING MAPS, DRAWINGS, ETC. Nicolas Tor-nauw, St. Petersburg, Russia.

The process substantially as hereinbefore described of treating maps, drawings and the like for the purpose specified, which consists in printing the map, drawing or the like upon the proper material, water-proofing said material, covering the same with a transparent adhesive substance, and sprinkling on the adhesive substance while moist a finely-powdered hard substance.



Fresno, Cal. The board has purchased a W. P. Toles & Co.'s No. 20 Rapid Acting Flush Vise for the manual training department; J. L. Hammett's drawing paper, Prang's drawing pencils, Higgins' waterproof drawing ink (black), Prang's rubber pencil erasers, and Pipe's lily white oil stone slips.

New York City. The board of education has purchased a Smith-Premier typewriter, which will be added to the equipment of the high school.

Philadelphia, Pa. The board awarded the contracts for six large filters to the Maignen Company and the Nally & Shea Company, and the contracts for smaller filters were divided between these two companies and the United States Filter Company.

Atlanta, Ga. Supt. W. F. Slaton has urged the board to plant shade trees on the school yards.

New Britain, Conn. The board awarded a school supply order to James Wilson & Co., of New York.

Sterling, Ill. The board will probably place fire escapes on the school buildings.

Toronto, Can. The public school supply committee awarded the contract for kindergarten supplies to Selby & Co.

Syracuse, N. Y. The board has contracted with the Triangular Book Cover Co. to supply 30,000 book covers.

Seranton, Pa. The McConnell School Supply Company, of Philadelphia, was successful in capturing a large order for general school supplies.

The antiseptic slates manufactured by the Holly Silicate Slate Co., 180 Fulton street, New York City, are

permitted to be used in the public schools of Greater New York by the board of health.

Joel D. Miller, member of Massachusetts state board of education, states that the "Gem Pencil Sharpener," manufactured by F. H. Cook & Co., Leominster, Mass., is of great importance for school work. This sharpener is in satisfactory use in very many cities and towns.

Columbus, O. The board each year designates certain persons to act as agents to handle the sale of text books. The board has adopted a resolution whereby it will no longer be required to relieve the agents of 10 per cent. or any portion of their purchases at the close of the school year. Heretofore the board has been compelled to purchase 10 per cent. of the left-over stock of the agents. It is felt that, under the new arrangement, the agents will make their purchases more carefully; that they will not suffer any hardship, and that the board will be saved much trouble and expense.

Amsterdam, N. Y. The board of education has purchased a Smith-Premier typewriter for use in schools.

Kenosha, Wis. The school board purchased the school supplies for the ensuing term from the Union School Furnishing Co. of Chicago, Ill.

Columbus, O. A Smith-Premier typewriter has been added to the equipment of Ohio state university.

Grand Rapids, Mich. An order for crayon was placed with the National Crayon Co.; school supplies purchased from the School Office Supply Co.

Athens, N. Y. The board of education has purchased a Smith Premier typewriter, and will use it for instruction purposes.

Philadelphia, Pa. The following companies received orders from the board for supplies for the chemical laboratory of the new high school: Queen & Co., Arthur H. Thomas, Maurice Deeds, and J. Smith.

The Central School Supply House, of Chicago, recently sold 8,000 relief maps to one school board.

Philadelphia, Pa. The board of education has purchased another Smith-Premier typewriter.

Racine, Wis. An order for school supplies was given the Central School Supply House, of Chicago.

Fair Haven, Mass. The board of education has purchased four Smith Premier typewriters for use in the high schools.

Washburn, Wis. An order for flags and wire window guards placed with The Caxton Co., of Chicago. Kindergarten material purchased from Thomas Charles & Co.

Utica, N. Y. The board has received these bids for blackboards: C. W. Walkner, 14½ to 15½ cents per square foot; George & Griffith, \$274.80; Standard School Furniture Co., 15½ to 16½ cents per square foot; E. J. Johnson & Co., New York, 14½ to 15½ cents per square foot.

Zanesville, O. The board has purchased a Crowell cabinet for the high school laboratory.

San Diego, Cal. Contracts for supplying the schools with kindergarten and physical training supplies were awarded to Loring & Co.

Athens, O. Three Smith Premier typewriters have been purchased for use in Ohio university.

Le Roy, N. Y. School material procured from Randolph McNutt.

Rutland, Vt. A supply of pencils purchased from the Eagle Pencil Co.; drawing material from the Prang Educational Co.; general school supplies from J. L. Hammett Co., and the Vermont School Supply Co.

Marietta, O. The board of education has purchased a Smith Premier typewriter for use in the schools.

Carthage, Md. The board has decided to supply pupils this coming year with Esterbrook steel pens.

Elkhart, Ind. The contract for school supplies was awarded to Davis & Co.

Monticello, Ia. The board placed an order with the Chicago Laboratory Supply & Scale Company. Records have been purchased from the Columbia Phonograph Company.

Wakefield, Mass. Three Smith Premier typewriters have been purchased for use in the high school.

Utica, N. Y. The contract for furnishing shades with Buffalo fixtures was awarded to John A. Roberts & Co., while J. M. Olcott & Co., of Chicago, received the contract for furnishing blackboards.

St. Mary's, Pa. A Smith Premier typewriter has been added to the equipment of the public schools.

Detroit, Mich. The board ordered purchased an equal amount of Eagle and Estabrook pens.

Omaha, Neb. Drawing material procured from the Prang Educational Co.

Springfield, Mass. The board of education has purchased three Smith Premier machines to be used in the high school.

Kenosha, Wis. A representative of the Central School Supply House of Chicago made an interesting talk to the board at its last meeting on "relief maps." It was really a lecture and the members of the board paid the strictest attention. The board, after the talk, gave the agent an order for maps.

Eau Claire, Wis. W. Clendenin, representative of Rand, McNally & Co., sold the board a supply of maps for the new schools.

Potter & Putnam Company have been awarded con-



tract for their vertical script reading charts to be used in the schools of Porto Rico.

Chicago, Ill. Atkinson & Mentzer secured the award to furnish the necessary inks, wells and glasses required for use in the schools for the ensuing six months. An award was made to the Standard School Furnishing Company to equip the Horace Mann school with Venetian blinds.

Chicago, Ill. The board of education purchased drawing instruments from Doe & Reynolds Company; ink from J. M. Olcott & Co.

Albuquerque, N. Mex. The territorial board of education adopted the Rand McNally series of new maps for the schools of the territory.

Winnipeg, Manitoba. The Central School Supply House, of Chicago, was given an order for school supplies.

Never before have the articles comprising the "Holden System for Preserving Books" been in such great demand as this year. Experience is a good teacher, and school boards have learned the lessons in economy and cleanliness very extensively from Maine to Montana. The thorough appreciation of the Holden articles is well shown in their increasing business and popularity each year.

Lynn, Mass. The Eagle pencils are used in the schools.

The maps published by the McConnell School Supply Company, of Philadelphia, covered the Eastern and western hemisphere, North and South America, Europe, Asia, Africa, United States and Mexico. They also include a number of other countries. Township maps for Michigan, Minnesota, Wisconsin, Illinois, New Jersey, Delaware, Pennsylvania, Iowa, North and South Dakota are also published by this company.

The demand for book covers is steadily increasing with each year. The Triangular Book Cover Company of Syracuse, N. Y., made some heavy shipments last month. This company manufactures the paper adjustable covers for school books. These covers are made of the best rope manila stock.

The Union School Furnishing Company of Chicago is among the new enterprises in the school supply line. The new company was founded by experienced men in their line who are familiar with the field and its opportunities. They are aware that amid the multitude of competitors success can only be attained by earnest work, ample experience and honorable methods. Equipped with these requisites the new company has entered the field. It will manufacture and deal in school supplies and furniture, and will also publish books. The company consists of W. W. Tutwiler, president; E. J. T. Moyer, secretary; and C. C. Marquerat, treasurer. The offices and salesrooms are located at 211-213 East Madison street.

An interesting circular on slate blackboards has been issued by E. J. Johnson & Company, 38 Park Row, New York. In a sensible and business-like manner the subject of slate blackboards, the quarrying and finishing thereof, the filling of orders, terms, shipments, etc., are discussed. Instructions for the practical and economical setting of blackboards in school rooms are given. These instructions are so plain that any janitor or carpenter can easily understand them. They are further simplified by diagrams and illustrations. The cover page shows an animated scene in a slate quarry.

A handsome illustrated and well arranged catalogue of the celebrated Braun Carbon Prints for school room decorations has been issued. The collection covers all the great art productions. Drawings and gravures of the old masters, collections and works of modern artists, gallery of contemporaneous artists, architecture and sculpture, hellogravures are listed, giving in each instance the subject, together with price. The various schools in art are covered. Small half-tone reproductions of several hundred works of art are included in the catalogue. The Braun Carbon Prints are published by Braun, Clement & Company, 249 Fifth avenue, New York. The price of the catalogue is 50cts., but we understand that they are furnished to educational institutions free of charge upon application.

Any city or town considering the question of free text books, should write the Holden Patent Book Cover Co., for full particulars and information regarding their patented articles for preserving and keeping the book clean. The soiled and filthy cover removed at the end of the year tells the story, as to the great saving effected by the Holden Cover.

## Possibilities of School Drawings.

The art of drawing has a manifold educational value. It appeals to the hand as well as to the mind, and since the visual representation of an object is, for purposes of instruction, second only to the object itself, drawing becomes a necessary adjunct of the system of teaching by objects, which is Nature's system, and the one followed by all advanced educators.

Nature is prodigal of color; she lavishes it upon all her works, and it is impossible to grasp the beauty and full meaning of these works without due appreciation of color. The camera cannot reproduce the magnificent coloring of an autumn sunset. Hence, in order that drawing as a branch of instruction may assume its higher and proper function, color work is absolutely

essential. Colors appeal strongly to the imagination, especially of the young, and serve to impress ideas of form and proportion upon the mind. Through the medium of the ear the varying tones and shades of sound are brought home to the mind, and how various and grand are the effects produced by the thousand tones and shades of color through the eye!

The use of color in some form in elementary drawing has been demanded for a long time. In the lowest grades in some cities, colored papers are used in simple decorative work; but these constitute an impracticable medium if the aim is pictorial representation, no matter how elementary. In the higher classes, water colors are sometimes employed; but they are difficult to handle, and the brushes, boxes, cups, and water are embarrassing "impedimenta" to both the pupil and the teacher.

## School Furniture.

The demand for school furniture during the present year has so far been a reasonably good one. If a comparison were made on the essential features of the year's trade with those of former years, it might be stated that the sales were freer from acrimonious contention. The old time school desk fights which were oftentimes attended with scandal to a community and with serious losses to the manufacturers, have not been heard of this year. This may be due either to the regulation of the industry or the fact that a discriminating judgment actuates school boards. No doubt the fact that a better understanding among manufacturers and agents has been brought about accounts more largely for the elimination of former abuses. Whatever this may mean to rival manufacturers themselves, a peaceful and business-like attitude towards the school authorities must be accepted as satisfactory.

The current prices are reasonable. No one, no matter how economically he may be inclined, can complain. Labor and material have declined but little over the figures of one year ago, when they were at a high water mark. Shipping rates on raw material and the finished product are the same.

If another feature of the year's trade may be mentioned it is the fact that a better class of school furniture has been in demand. Shoddy goods have been in disfavor. School boards have sought the better grade of desks and have been ready to pay the price.

This may be accounted for in several ways. Cheap school furniture has always been expensive. It has always demonstrated itself to the school official who has been long enough connected with a school system to note the service given by cheap furniture bought some years ago.

Another reason may be assigned to the movement in the direction of school room decoration. The fact that more attention is now being paid to the appearance of the ceiling and walls and the general class room paraphernalia, accounts in a measure for improved desks.

With the desire for grace and design in school furniture has come the appreciation for durability in construction as well as the embodiment of hygienic principles in shape and form. Minor advantages may have been overlooked, but the essentials have, no doubt, been emphasized in the greater number of purchases that have been made. This may be regarded as a tribute to the progressive spirit which is animating school boards. That manufacturers have exerted themselves in this direction must also be admitted. Too often a particular desk was selected because it possessed some minor but attractive feature. This the manufacturer calls a selling point. An agent is always willing to avail himself of even the smallest advantage.

The initiative for better goods after all must be credited to the manufacturer. He applied brains and skill in producing a school desk that should stand out as an article of beauty as well as utility. The pride of an industry as well as the desire for competitive advantage no doubt prompts progress in manufacturing lines.

The tendency this year has been towards recognizing the real essentials in a school desk which is creditable to both the buyer and the seller, and to the great advantage of the schools.

Racine, Wis. The board received proposals from the American School Furniture Company and the A. H. Andrews Company.

Spencer, W. Va. The school board awarded contract for desks to the Western School Supply Works.

Pratt City, Ala. The Piqua School Furniture Works secured the contract for school furniture.

Greensboro, N. C. The Grand Rapids School Furniture Works secured an order for over 100 desks from the board of education.

Middleton, Pa. The school board placed an order for adjustable chair desks with the Chandler Adjustable Chair & Desk Works.

Stobo, Pa. Thomas Kane & Company secured here a nice order for school desks.

Fond du Lac, Wis. The contract for 500 single seats and sixty-five rears, was awarded to H. G. Andrews, of Chicago, representing the American School Furniture Company.

Bloomfield, N. J. The Chandler Adjustable Chair & Desk Works was the successful bidder on school desks. Gettysburg, Pa. The American School Furniture

Company proved the successful bidder on school desks.

Spangler, Pa. Thomas Kane & Company Works secured an order for about 100 school desks from the board.

Sandy Lake, Pa. The school board has placed a nice order for ball-bearing school desks with the Grand Rapids School Furniture Works.

York, Pa. The Chandler Adjustable Chair & Desk Works was the successful bidder on school desks.

Minneapolis, Minn. The board awarded the contract for furnishing the assembly hall in the new east side high school with opera seats, to the Minneapolis School Furniture Co.

San Antonio, Tex. A large number of school desks, manufactured by the A. H. Andrews Co., were purchased from C. H. Meyers & Co., of Houston.

Rochester, N. Y. The school board has again placed an order with the American School Furniture Company. The board is well pleased with the desks ordered from this company before.

Bingham, Me. The Grand Rapids School Furniture Works received a very nice order for ball-bearing desks from the school board.

Fulton, N. Y. The school board has just placed an order for about 100 desks with the American School Furniture Company.

Jersey City, N. J. The school board purchased 1,000 assembly chairs from the Grand Rapids School Furniture Works, for use in their assembly rooms.

Woodbridge, N. J. Thomas Kane & Company Works was the successful bidder for school desk contract, securing an order for 100 adjustable chair desks.

Great Neck, L. I., N. Y. To J. W. Schermerhorn & Co. was awarded contract for the Sauder adjustable desks.

Schenectady, N. Y. The school board has given an order for about 300 school desks to the American School Furniture Company.

Newark, N. J. The Grand Rapids School Furniture Works secured an order for about 300 frictionside chair desks from the school board.

Brockport, N. Y. The American School Furniture Company was the lowest bidders on school desks and was favored with an order for about 300 desks.

Westover, Pa. Thomas Kane & Company proved the successful bidders on school desks.

Elmira, N. Y. The school board, after examining different desks made, was unanimously in favor of the desks shown by the American School Furniture Company, and placed an order with that company for several hundred desks.

Hawthorn, N. J. The Grand Rapids School Furniture Works proved successful bidder on school desks and secured a nice order for their frictionside desks.

Adams, N. Y. The board placed an order for school desks with the American School Furniture Company.

Huntington, W. Va. The school board awarded contract for school desks to the Piqua School Furniture Works.

Mohawk, N. Y. The American School Furniture Company was the successful bidder for school desk contract.

Murray Hill, N. J. The school board placed an order for school desks with the Grand Rapids School Furniture Works.

Dolgeville, N. Y. The board of education placed an order for school desks with the American School Furniture Company.

Reedy, W. Va. Thomas Kane & Company was the successful bidder on school desks.

Leroy, N. Y. The school board placed a nice order for adjustable desks with the American School Furniture Company.

Patterson, N. J. The Grand Rapids School Furniture Works received an order for about 500 of their combination adjustable desks from the board of education.

Toledo, O. Eight hundred Columbia school desks were ordered from the American School Furniture Company.

Two Rivers, Wis. School seats purchased from the American School Furniture Co.

Cedar Rapids, Ia. An order for school desks was given to the American School Furniture Co.

Ballston Spa, N. Y. The board has placed an order with Randolph McNutt, of Buffalo, for 300 school desks, six teachers' desks and chairs, and two chemical laboratory tables. The board was released from the requirement of procuring them from the prison department, as it was unable to furnish them at present.

St. Joseph, Mo. The contracts for school desks were awarded to the Hudson School Furniture Company, of Athens, O., and the Caxton Company, of Chicago.

Hamilton, O. The A. H. Andrews Company, American School Furniture Co., and E. W. A. Rowles made the board proposals to furnish the new Second ward school with desks and seats.

Evansville, Ind. The board placed an order for desks for the Chandler school with the Central Desk Company, of Chicago.

Davenport, Ia. It was voted to purchase needed school furniture from the American School Furniture Company.

Racine, Wis. The American School Furniture Company was awarded the contract for furnishing 203 Victor desks.



# Book Reviews

**RUDIMENTS OF ALGEBRA.** By George Egbert Fisher, M.A., Ph.D., and Isaac J. Schwatt, Ph.D., Assistant Professor of Mathematics in the University of Pennsylvania. 183 pages. Published by Fisher & Schwatt, Philadelphia.

"Multum in parvo" seems to have been the aim of the authors of "Rudiments of Algebra," and they have undoubtedly succeeded. The book has many merits, not the least of which are its brief, lucid expositions. However, we are inclined to think that it supposes more intelligence and quickness of perception than the ordinary beginners bring with them to the study of algebra. This, of course, can be remedied by a good teacher, and, if we mistake not, the authors count on a great deal of supplementary work on the part of the teacher. The book is well gotten up, and we do not hesitate to recommend it to those who are looking for a "brief course in the elementary processes of algebra."

**SECONDARY ALGEBRA.** By George Fisher, M.A., Ph.D., and Isaac J. Schwatt, Ph.D., Assistant Professor of Mathematics in the University of Pennsylvania. 397 pages. Published by Fisher & Schwatt, Philadelphia.

The authors of this very excellent work have done a service to all who are engaged in the difficult but important duty of teaching the first notions of algebra to the young and inexperienced. We admire the simplicity and thoroughness of the methods used in this book, to bridge over the supposed chasm between arithmetic and algebra. All who have witnessed the struggles of a class of beginners to grasp the meaning of algebraic symbols and forms will appreciate the assistance offered to the pupils through this text book. It would not surprise us to find this new work a very popular one among educators generally.

**A TERM OF OVID.** By Clarence W. Gleason, A.M. (Harvard), of the Roxbury Latin School. Cloth, flexible, 209 pages, illustrated. Price 75 cents. Published by the American Book Co., New York, Cincinnati, Chicago.

The transition from the plain narrative of Caesar to the perilous heights of Virgil, is generally found a test both of the ingenuity of the teacher and the capacity of the pupil. The abruptness of the change and the many new difficulties that present themselves are apt to discourage the beginner. In this little volume, Professor Gleason met the difficulty by furnishing us with an easy and interesting introduction to the study of Latin poetry. The ten stories from the *Metamorphoses* have been carefully selected for their literary beauty and interest, and will prove an excellent introduction to Greek and Roman mythology.

As a further aid to the pupil, the author has added a prose version of three tales and has marked the scansion. Among the noteworthy features of the book are, a good vocabulary, scholarly notes, tables of genealogy and an excellent chapter on "Helps to Scansion." Professor Gleason has omitted nothing necessary to an intelligent study of Latin verse.

**ELEMENTARY PHYSICAL GEOGRAPHY.** An Outline of Physiography. By Jacques W. Redway. 383 pages, with illustrations and maps. Published by Chas. Scribner's Sons, New York.

Redway's *Elementary Physical Geography* is an excellent production in many respects. As long as the author keeps to his subject scarcely

any fault can be found with his work. The selection of topics, their arrangement and presentation, leave nothing to be desired. It is, in fact, an attractive and useful text book. But when the author leaves his familiar haunts, and wanders into the—at least to him—unknown regions of psychology, he loses himself completely. To say that the chief difference between man and the brute is that man's reasoning faculties are developed and the brute's are not, and in the next sentence to affirm that the power to reason abstractedly is possessed by man alone, is, to say the least, confusing. We would suggest for his attentive consideration the ancient proverb, "Sutor, ne supra crepidam."

**POPULAR ASTRONOMY.** Being the New Descriptive Astronomy. By Joel Dorman Steele, Ph.D., revised and brought down to date by Mabel Loomis Todd, author of "Corona and Coronet," "Total Eclipse of the Sun," etc. Cloth, 12mo, 349 pages, illustrated. Price \$1. Published by the American Book Co., New York, Cincinnati, Chicago.

To those who appreciate what a "Liberal Education" means, and who, moreover, realize that our high schools and colleges are not to train specialists, but to impart a "Liberal Education," this revision of Steele's astronomy by Mabel Loomis Todd will be most acceptable. Although many changes were necessary in the original in order to bring it down to the requirements of modern research, still all the desirable features of the original have been preserved. In its present form the book is a mine of accurate information. The chapter on "Celestial Measurements" and the "questions for class use" ought to prove most useful. The arrangement of the matter and its treatment, the illustrations—in fact, the whole "get up" of the work—make it a very attractive text book.

**CORNELIUS NEPOS' TWENTY LIVES.** Edited by John Edmund Barss, Latin Master in the Hotchkiss School. 316 pages. Price 90 cents. With maps, illustrations, etc. Published by the Macmillan Co., New York, Chicago. (For sale at Des Forges & Co., Milwaukee, Wis.)

It is evident that Nepos, as a second year author, has come to stay; the pity is that our educators have been so long in recognizing his rightful place. These twenty lives by Mr. Barss are all that the most exacting and fastidious master could desire. The first thirteen lives have been edited with full notes and commentary for careful, thorough study; the last seven being intended for sight or cursory reading, have the notes at the foot of the page. Some masters devoted all their time to thorough work and hence cover so little ground that their pupils never acquire facility in reading Latin; others read so much that nothing is seen through; here we have the happy medium suggested and rendered easy and possible.

Another valuable feature of the book is the collection of exercises for translation from English into Latin. The words and constructions are taken from the lives studied. Why is it that so many schools use an exercise book having no connection with the author studied? It is surely cumbersome and confusing. Mr. Barss is to be congratulated on the correct principles so ably put into practice in this edition of Nepos. The fifteen pages of board-groups will be found very helpful.

**ELEMENTS OF ALGEBRA.** By Wooster Woodruff Beman, Professor of Mathematics in the University of Michigan, and David Eugene Smith, Principal of the State Normal School at Brockport, N. Y. 430 pages. Price \$1.22. Published by Ginn & Co., Boston.

In the work before us, agreeably to their desire, the authors have caused the light of modern mathematics to shine in upon the old. It is undoubtedly a modern, an up-to-date algebra. Departures from the old methods and arrangement of matter are numerous and in many cases attended with success. The book abounds in the very latest symbols and ways of presenting the matter, which make it very unlike the text book of old. A pleasing feature of it is the attempt to illustrate and make clear every statement by practical examples. Throughout the entire work it seems to be the set purpose of the authors to present the abstract in a most concrete and tangible form and thus make easy and interesting that which is but too often obscure and hard to grasp.

**THE BELLUM CATILINAE OF C. SALLUSTIUS CRISPUS.** Edited on the basis of Schmalz's edition, with an Introduction and a Vocabulary by Charles George Herbermann, Ph.D., LL.D., Professor of the Latin Language and Literature in the College of the City of New York, Editor of Sallust's "Jugurthine War," author of "Business Life in Ancient Rome." The Students' Series of Latin Classics. 192 pages, with half-tone engravings. Published by Benj. H. Sanborn & Co., Boston.

When a book edited by Dr. Herbermann is announced the discerning student expects something of more than ordinary merit; he will not be disappointed in the edition of Sallust's *Catilinæ*.

Based upon Schmalz's deservedly popular edition, with increased historical information, with additional notes on grammar and style for the use of the less advanced student, Sallust's *Bellum Catilinæ* will be found suited to those for whom this edition is especially prepared, as well as most acceptable to the more advanced.

**WATER COLORS IN THE SCHOOL ROOM.** By Milton Bradley. 63 pages, with illustrations. Published by the Milton-Bradley Co., Springfield, Mass., New York, Philadelphia, Atlanta, San Francisco.

To give some simple but much-needed instructions in the use of water colors is the aim of this little volume. The subject is treated in a practical manner. Many valuable hints and suggestions are given.

**MILTON'S L'ALLEGRO, IL PENSEROSO COMUS, LYCIDAS.** Number 7. Edited with Introduction and Notes by Edward S. Parsons, M.A., Bemis Professor of English, Colorado College. The Cambridge Literature Series. Edited by Thomas Hall, Jr., A.B., Instructor in English in Harvard University. 138 pages, with half-tone engraving frontispiece of Milton. Price 30 cents. Published by Benj. H. Sanborn & Co., Boston.

The publishers have added another splendid little volume to the Cambridge Literature Series. Like its predecessors, this volume is equipped with an introduction and with notes that make the study of the work a pleasure. It is especially adapted for school libraries.

**SIDE LIGHTS ON AMERICAN HISTORY.** By Henry W. Elson, A.M., Lecturer of the American Society for the Extension of University Teaching; author of "Historical Biographies for Children," "What to Read," etc. Series II. The Civil War and Our Own Times. 410 pages. Price 75 cents. Published by the Macmillan Co., New York, Chicago. (For sale at Des Forges & Co., Milwaukee, Wis.)

A number of topics are forcefully treated. The Presidential Election of 1860, the Secession, Great Leaders in Congress During the War, Causes of Northern Success, The Alabama Claims, A Century of Tariff Legislation, The Spanish War, etc., are some of the head-lines of chapters in the book.



**INTRODUCTION TO ZOOLOGY.** A Guide to the Study of Animals for Use of Secondary Schools. By Charles Benedict Davenport, Ph.D., Assistant Professor of Zoology in the University of Chicago, Director of the Biological Laboratory of the Brooklyn Institute of Arts and Sciences, located at Cold Spring Harbor, Long Island, and Gertrude Crotty Davenport, B.S., formerly Instructor in Zoology at the University of Kansas. 412 pages, with 311 illustrations. Price \$1.10. Published by the Macmillan Co., New York, Chicago. (For sale at Des Forges & Co., Milwaukee, Wis.)

This work is based upon the conviction that anatomy is fundamental for advanced work in zoology and physiology. It is a guide to the study of animals rather than a treatise on the modern science of zoology. It is assumed that the majority of men do not become zoologists, but should have a knowledge of the common animals. The plan of the book is admirably carried out.

**OUTLINE HISTORY OF ENGLISH AND AMERICAN LITERATURE.** By Chas. F. Johnson, Litt. Doc., Yale; Professor of English Literature in Trinity College, Hartford. Cloth, 12mo, 552 pages, illustrated. Price \$1.25. Published by the American Book Co., New York, Cincinnati, Chicago.

This volume contains within a brief space a comprehensive treatment of both English and American literature, and will prove a desirable book for schools which furnish instruction in the literatures of both countries. The author has aimed to compress into this book the minimum of literature with which every young person should be familiar, and has designed it for use as a text book during one year's study. He has based it on the historic method of study, and has given in each chapter a brief survey of those changes and events in social development which have produced great effects upon literature. The work has been brought up to date and includes the names of prominent later writers.

**A HISTORY OF THE UNITED STATES FOR BEGINNERS.** For use in Elementary Schools. By W. B. Powell, A.M., Superintendent of Public Schools, Washington, D. C. 276 pages, with maps and illustrations. Price 75 cents. Published by the Macmillan Co., New York, Chicago. (For sale at Des Forges & Co., Milwaukee, Wis.)

This is a book for the intermediate grades. Mr. Powell, the author, believes that it is also well adapted for home reading. We agree with him. The leading events of the history of the United States form a connected discourse, shedding light on civil government.

**DOMESTIC SCIENCE IN GRAMMAR GRADES.** A Reader by L. W. Wilson, Ph.D., of the Philadelphia Normal School. 193 pages. Price 60 cents. Published by the Macmillan Co., New York, Chicago. For sale at Des Forges & Co., Milwaukee, Wis.)

The home, the kitchen, foods and cooking, the dining room, the bed room and ventilation, the laundry, household pests and house cleaning and sewing are practically, sensibly and instructively treated. Every branch—if we may so designate the several divisions of the book—is attractively treated and will hold the interest of any one inclined to a domestic life.

**TARR AND McMURRY GEOGRAPHY.** Second Book North America. By Ralph S. Tarr, B.S., F.G.S.A., Cornell University, and Frank M. McMurry, Ph.D., of Columbia University. 469 pages. Price 75 cents. Published by the Macmillan Co., New York, Chicago. (For sale at Des Forges & Co., Milwaukee, Wis.)

The first book of the Tarr & McMurray geographies is a sufficient guarantee that the second is an acceptable volume. It is entirely devoted

to North America, thus providing space for a full treatment of the United States. Part I is a general study of North America; Part II the United States; Part III other countries of North America. Colored political maps, relief maps, city maps, etc., are given. The illustrations are numerous and excellent.

**A HISTORY OF EDUCATION.** By Thomas Davidson, author of "Aristotle and the Ancient Educational Ideals," etc. 292 pages. Price \$1 net. Published by Chas. Scribner's Sons, New York.

This work is divided into two books. The first treats of savage, barbarian and civil education. In the section devoted to barbarian education, the author devotes essays to Chaldean, Egyptian, Chinese, Babylonian and Assyrian, Indian and Iran, or Medo-Persian conditions of education. The second book bears the title of Human Education, and is divided into three main sections: (1) Supernatural Beginning of Humanism; (2) Medieval Education; and (3) Modern Education.

By quoting from the author's preface, one can judge of the trend of the book. "My endeavor," says the author, "has been to present education as the last and highest form of evolution—that great process which includes both Nature and Culture. I have tried to show"—whether successfully or not the reader must judge—"what it is that evolves, why it evolves, and why evolution, finally attaining to consciousness, becomes education."

The following extract from the last chapter, which the author calls "The Outlook," will enable the reader to judge for himself of the scope and the religious tone of the work:

"The truth is, there ought to be in every city, ward, and in every country village a People's University, consisting of three parts: (1) a manual training school and polytechnic institute, in which instruction should be given in all the arts; (2) a college, which, eschewing authority, sectarianism, and all the medieval rags and symbols, to which most of our colleges at present cling, shall impart a coherent, scientific culture, laying special stress on those sciences which relate to the history and constitution of society; (3) a gymnasium, with baths, recreation rooms, and rooms for lectures on hygienic and kindred subjects. For public lectures and plays, there should be a well-appointed theatre."

**A GENERAL HISTORY OF EUROPE (350-1900).** By Oliver J. Thatcher, Ph.D., Associate Professor of Medieval History in the University of Chicago, and Ferdinand Schwill, Ph.D., Assistant Professor of Modern European History in the University of Chicago. 613 pages, with maps and genealogical tables. Price \$1.50 net. Published by Chas. Scribner's Sons, New York.

One valuable feature of this history is the correlation of text book and literature. At the head of each chapter is a list of books, sometimes as many as a dozen, with price and publisher, and referring especially to the subject matter of the chapter to which they are attached.

At the end of each chapter are appended special topics for more advanced and original thinkers of the class. The authors say these topics will be found to cut deeper in at some point of biography, or civilization, or government, and will afford a preliminary practice in the line of investigation, exposition and criticism.

The main divisions of the history are the medieval and the modern periods. The work is rendered more valuable by a set of chronological and genealogical tables, a word index, and a set of finely executed colored historical maps.

Thatcher & Schwill's "A General History of Europe" (350-1900) will probably reach a large sale.

**THE CONFESSIONS OF AN ENGLISH OPIUM EATER.** Being an Extract from the Life of a Scholar. By Thomas De Quincey. Reprinted from the London Magazine for September and October, 1821, and December, 1822. Edited with Introduction and Notes by Arthur Beatty, Ph.D., Instructor in English in the University of Wisconsin. 211 pages, with half-tone engraving of Thomas De Quincey. Price 25 cents. Published by the Macmillan Co., New York, Chicago. (For sale at Des Forges & Co., Milwaukee, Wis.)

"Tell, May I it obtayne

By alms, by fasting, prayer—by paine?"

"By paine."

So in the old pastoral questions one who "is seeking for the power of the poet and the prophet," and echo answers in the last words of his question. The most profound subjective writings have grown out of the authors' personal experiences. People without sensitiveness cannot become poets. Sensitiveness is susceptibility to suffering. The intense sufferings of De Quincey, from which he hoped to find relief in the use of opium, may have been the experience of others. But others have not so frankly admitted their experiences and their weaknesses, and published them as a warning to their fellow men. De Quincey was something of a philosopher. The analysis of his sensations is suggestive. He is conscious of the direction of his thoughts, even in his partial delirium. His thoughts are wandering, but still he watches them. His experiences in his efforts to emancipate himself from his enslaving habit are given in vivid language.

**TROIS CONTES DE NOEL, PAR MADAME GEORGES RENARD.** Paper, 23 pp. Published by Ginn & Co., Boston, New York, Chicago.

Three Christmas stories give three points of view of this great anniversary.

The time of the first is 1791. The place, a chateau with an outlook on the ever-changing water of Lake Geneva. A bride of months here watches the prison in which her husband is confined for a political offense. Her many efforts for his release have proved fruitless, and Christmas eve finds her sad and discouraged. Her maid speaks of a village custom which never fails—to put a slipper on the mantel piece while saying aloud one's greatest wish. The wife doubtfully complies, and events follow with the quickness of a play. A new gown arrives, she is summoned to a dainty dinner, her husband appears and begs leave to dine with her. He has eluded the vigilance of his keepers, and the next morning he crosses Lake Geneva to find safety and freedom in France—An old man tells, but does not explain, his tale coming from the house of a friend, his mind full of Christmas gayety and cheer, he passes a cemetery. Its many plants, trees, shrubs, the constant care it receives, make it most attractive in summer. It is beautiful now, but with the beauty of a winter-night what does he see? The trees are in leaf, in bloom. One great pine slowly brightens. It, too, is in bloom—low musical sounds are heard, shadowy childish figures appear, they gather the large, strange flowers. A slight sound makes him turn, the clock strikes three; when he looks again, all is gone. Was it a dream? or had he stumbled upon a mystery of the other world? In a small city a large, well-lighted church is filled with worshippers. Prayers and hymns of praise rise above the incense-laden air. High above, two forms are swiftly passing. The one with dark wings is Satan; the other, Christ. They pass over the review of a great army; a crowd of strikers, held in check by armed soldiery; a peasant family, evicted by officers of the law. All this on Christmas eve! Christ is grieved over the wrong committed on earth, while Satan smiles.



Wm. S. Mack, Western manager of the Prang Educational Co., Chicago, made a tour of Northern Minnesota, Wisconsin and Michigan last month. The primary object of his trip was to visit his school friends in that section, and the secondary object to get some relief from an attack of hay fever which afflicts Mr. Mack annually. He has been applying himself almost wholly this year to the management, having made but few trips into the field.

W. E. Cochrane, of the Prang Educational Co., made a trip to Europe this summer. Mr. Louis Prang and wife were also across the pond. They made an extensive trip over the continent, spending some time in Germany.

We have not heard of any bookmen going on the stump this fall, although many of them are better fitted to make speeches than some of the so-called professional orators. Many of the bookmen are strong partisans, but all of them judiciously suppress their partisan feelings where the interests of their firms are at stake.

Mr. F. S. Hyer, formerly superintendent of Rhinelander, Wis., has accepted a position with Houghton, Mifflin & Co. He succeeds Mr. W. E. Bloomfield, who did field work in Iowa, Minnesota, Wisconsin and northern Illinois. Mr. Bloomfield has taken Mr. C. F. Newkirk's place as Western manager for the firm. Mr. Hyer has a splendid record as a schoolmaster. His energy and industry, together with his pleasing presence, will make him a successful bookman.

The Southern bookman always stands ready to defend his section of the country against the

unjust criticism of the North. Whenever some outrage is performed in a Southern state, it is attributed to a natural tendency of its people. But the riot and bloodshed at Akron, O., recently is shown up as a proof that human nature is the same everywhere, and that under similar conditions the same depredations that occur in the South are likely to follow in the North. We are in receipt of a marked copy of the Atlanta Constitution which makes this argument clear. We believe that Col. L. B. Robeson, of Ginn & Co., sent us the paper. He is a typical Southern gentleman who strives both for progress and fair play.

Mr. James E. Warner represents Benj. H. Sanborn & Co. in the Western field. Mr. Warner has applied himself industriously in securing recognition for the Sanborn list. He has succeeded well so far and expects to do better in the future. The list includes some excellent books.

Messrs. Thompson, Brown & Co., of 76 Summer street, who were burned out last month, are temporarily located at 56 Summer street, pending repairs in their former location.

The educated knights of the text book who make their visits to Nebraska are hailed and bring good cheer in the same old way. All have been teachers and all of them—Garrett, Chapman, Focht, Hoenshel, Turner, etc.—owe their present positions to the fact that they were good teachers. They are college-bred men who can discuss modern educational problems as well as talk books, from a speller to an algebra.

Silver, Burdett & Co. send Chas. W. Turner into the state regularly. He also goes to Colorado and South Dakota.

The Werner School Book Co. is represented by Otto Focht, a former Kansas schoolmaster, who is a native of Ohio.

The Western Publishing House, of Chicago, is represented by E. O. Garrett, a man who saw the light of day first in Iowa, and rendered splendid work as a superintendent in several Western states.

The Macmillan Co. has Arthur E. Chapman, a scholarly gentleman, to look after its interests in Nebraska as well as in Iowa, Minnesota and Colorado.

The firm of Crane & Co. employs E. J. Hoenshel to look after Nebraska. Mr. Hoenshel also finds time to take occasional excursions into Iowa and Missouri. He lives in Kansas. "Hoenshel's Grammar" is his own production.

The three-leaved clover of bookmen from New York that looked after the business of their respective houses in a genial manner and at the same time extracting some pleasure out of the natural beauties which surround Charleston, S.

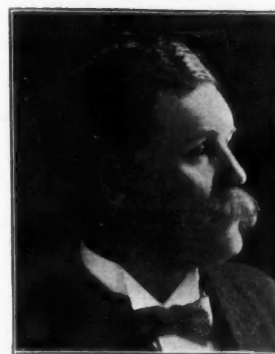


C. W. D. Coffin, A. F. Hoffman, H. T. Dawson.  
Three bookmen at the Isle of Palms, during the  
Charleston N. E. A. meeting.

C., are reproduced in a snap-shot. We carry a camera which we shoot when anything good is in sight. There were some good things at the Isle of Palms—many of which we missed to get with a snap-shot. We got the trio—Dawson, Hoffman and Coffin—but not until they had replaced their bathing costume by the conventional summer outing garments. At the unsuspecting moment when we pressed the button, Coffin was adjusting his glasses, Hoffman was thinking of future book contests, while Dawson was asking, "What in Sam Hill is Bruce up to now?"

Capt. W. B. Kendrick, general agent University Publishing Co., writes us asking our opinion of a first reader that does not have an illustration of a "rat" in it. The captain thinks that some readers are getting too precise and says he is reminded by them of the woman who would not lend a helping hand to a drowning man because she was not acquainted with him.

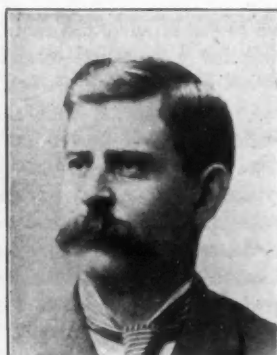
Maj. Clancy is looked upon as one of the most efficient bookmen in the Northwest. He possesses generalship and courage in a contest. His opponents even regard him as a genial, companionable man. The major represented his house for some years in the state of Iowa. Of late years he has made Chicago his headquarters. He looks after the larger cities.



MAJ. A. W. CLANCY,  
Agt. American Book Company.



F. S. HYER,  
Who will represent Houghton,  
Mifflin & Co. in the  
Northwestern  
field.



W. E. BLOOMFIELD,  
Who succeeds C. F. Newkirk  
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Houghton, Mifflin  
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Mrs. MARY R. DAVIS, INSTITUTE INSTRUCTOR.

Mrs. Davis has for the past eight years lectured at institutes throughout the New England states and in the West, her special field being primary work and geography. She has had wide experience in training school work and as an institute instructor, and has acquired a high reputation in both of these departments. She is a lady of commanding presence and is an earnest, forcible speaker. For several years past she has been acquiring material for a new Elementary Geography, which, in connection with Dr. Deane, Supt. of schools at Bridgeport, Conn., has been completed and is now being issued from the press by Potter & Putnam Company, publishers, New York.

The advanced INDUCTIVE GEOGRAPHY, by Dr. Deane and Mrs. Davis, was brought out in the fall of 1899 and was revised in the summer of 1900.

BABY GOOSE: His Adventures, by Fannie E. Ostrander. Every page illustrated in colors. Boards, cover in four colors, \$1.25. Published by Laird & Lee, Chicago.

This handsome volume is the joint effort of Miss Fannie E. Ostrander, a well-known author

of charming talent, and Mr. R. W. Hirschert, a clever and witty artist. Our little tots seem to be getting every year more difficult to please, and it looks as if they also had inhaled the progressive spirit of the new century. The old-fashioned baby-books with glaring lithographs or uninteresting wood-cuts have to give way to brilliant and tasteful process - engravings, wherein the clearness of the sketches vies with the delicate blending of the colors.

Among these new departures *Baby Goose* stands first and foremost. The story, told in catchy, rollicking verse, is a continuous one, divided into a number of separate incidents, each of them with its full share of inimitable daintiness and humor. Everyone of the 96 pages, large quarto size, album shape, is a picture in itself with the hand-made lettering coming up bold and distinct. By a novel rotating method, over twelve different colors and a number of ex-



tra tints have been used through the book with most attractive effects; the cover and back-cover are in themselves real gems of composition and treatment, and are sure to meet with the enthusiastic welcome an expense of so much money and trouble deserves. We cannot insist

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too much upon the perfection of this beautiful volume which will undoubtedly be the leader in the coming season of presents for the little ones. By the way, the wit of the text and the cleverness of the pictures are sure to delight many a grown-up person. We know it charmed us and will be gazed upon over and over again. The publishers deserve credit for the thoroughly artistic make-up of this exquisite volume.

ALICE'S VISIT TO THE HAWAIIAN ISLANDS. By Mary H. Krout, author of "Hawaii and A Revolution," "A Looker-on in London," etc. 208 pages. Price, 45 cts. Published by the American Book Company, New York, Cincinnati, Chicago.

This is a delightful book for children. It is instructive, giving the various and varied points of interest connected with the islands.

HOW TO RECITE. A School Speller. By F. Townsend Southwick, Principal of the New York School of Expression; author of Elocution and Action. Cloth 12mo., 464 pages. Price, \$1.00. Published by the American Book Company, New York, Cincinnati, Chicago.

This volume, no doubt, is the outgrowth of experience in training for public speaking. It is a well arranged, well balanced treatment of the subject—practical, serviceable and complete.

## SCHOOL SANITATION AND DECORATION.

By Severance Burrage, B. S.,

Of the Dept. of Sanitary Science in Purdue University.

and Henry Turner Bailey,

State Supervisor of Drawing in Massachusetts.

It is the purpose of this book to contribute to the forces which are co-operating to produce the crowning race in America—the race that shall have the piety so happily defined by Dr. W. T. Harris — "the piety not merely of the heart, but the piety of the intellect that beholds truth, the piety of the will that does good deeds wisely, the piety of the senses that sees the beautiful and realizes it in works of art."

### CONTENTS

- Chap. I.—Location of Schools.
- " II.—Construction and Requirements of School Buildings.
- " III.—Principles of Ventilating, Heating and Lighting.
- " IV.—Sanitary Problems of the Schoolhouse.
- " V.—School Furniture.
- " VI.—The Schoolroom.

- Chap. VII.—Schoolroom Decoration.
- " VIII.—The Old Country Schoolroom.
- " IX.—School Children.
- " X.—Influence of School Life Upon the Eyes.
- " XI.—School Authorities and Patrons.
- " XII.—Beauty in School Work.

APPENDIX—Classified list of Works of Art for Schoolroom Decoration. THE ILLUSTRATIONS—nearly 100 in number—include reproductions of great masterpieces, plans and elevations of school buildings, specimens of artistic work by pupils, and many suggestive diagrams.

CLOTH. 60 full page illustrations and many diagrams. \$1.50.

D. C. HEATH & CO.,

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## School Architecture.

(Continued from page 7.)

becomes dull, and is not the equal of a perfect plaster ceiling for reflecting light; the walls are better for the eye if tinted. Nothing can be better for blackboards than natural slate, but the joints should be cemented together after being planed; the chalk receivers should be placed at a height of 2 feet 2 inches from the floor for small children, and not over 3 feet 4 inches for high school pupils; blackboards should not be placed between windows, and from 30 to 40 feet in length is sufficient for any class room; dustless crayons should be used; if common ones are used, they should be wiped off with a damp cloth, and not with a dry brush. Slots in the top moulding of the boards should be left for cards. Picture mouldings should be placed everywhere.)

The number of pupils to a room can only be decided by the committee in charge.

The sizes of rooms for good seating depends on the size of the desks and ages of the pupils; the blackboard aisle, 3 feet 6 inches; the exterior aisles should be not less than 2 feet wide; inside aisles never less than 18 inches.

The accompanying diagrams showing method of obtaining exact seating capacity are self-explaining. The diagram of adjustment for different ages is a valuable object lesson, being the result of actual measurements of 3,610 pupils.

An average desk 24 inches wide, 16 inches deep, with chairs 30½ inches from back to back, seating grammar school pupils up to the age of 18, allowing space for teacher, will make a room 25 feet 10 inches by 34 feet 4 inches and allow 54 seats when fronted the narrow way, or when fronted the wide way of the room. We find by careful adjustment of sizes of seats and ages of pupils, that it is necessary to allow 20 square feet of floor surface per pupil, as most authorities state; they do not make any allowance for the age, and place small and large on the same footing. We estimate 15 square feet for high schools; this makes quite a difference in the area and cost of a building. The adjustable desk, with adjustable seat having a back of one curve, seems to us the best and most comfortable for pupils. In a room longer than 36 to 38 feet it is difficult for a teacher to speak in an ordinary tone of voice so as to be clearly heard by the pupils in the rear row of seats.

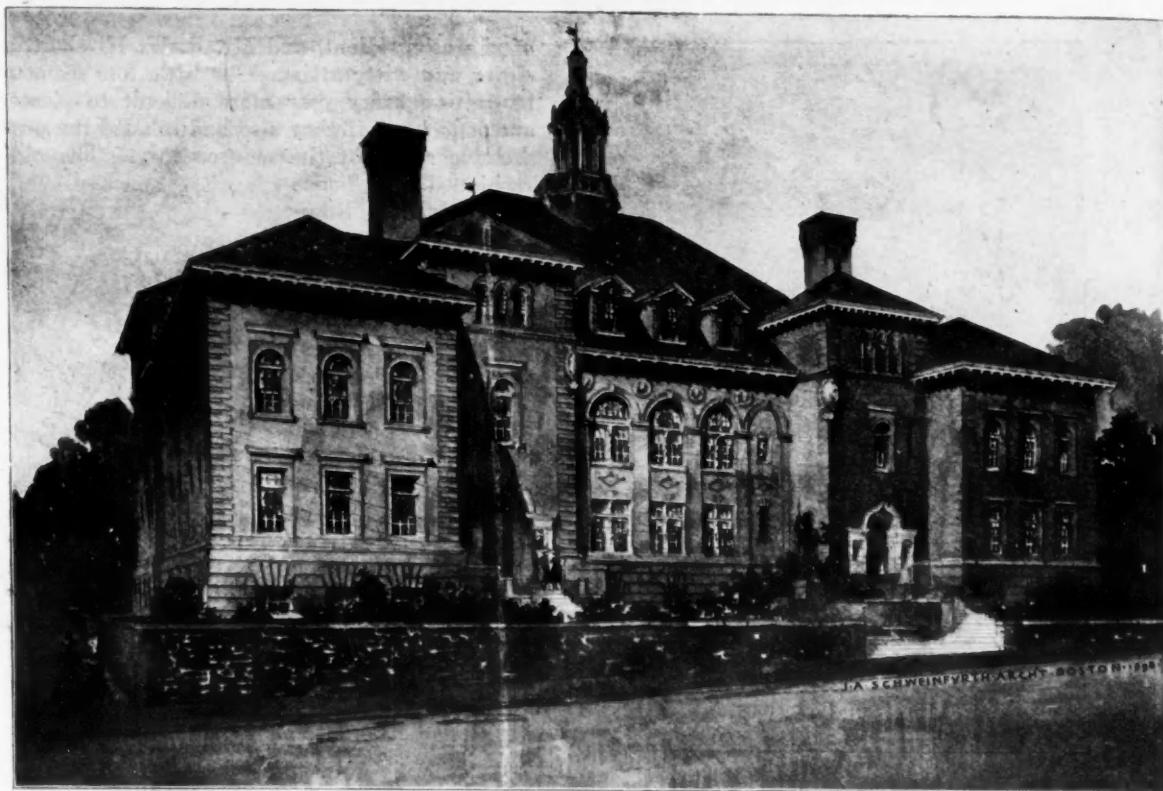
Corridors should be without obstruction, and never less than 8 feet; 10 is better. Stairways should be 6 feet wide and each flight broken with a landing; these stairs should be as near the exit as possible, and also equally placed at each end of the building; no portion of entrance, halls, corridors or stairs should be so planned that one teacher in charge of a floor cannot command a view of the same for maintaining discipline.

Stairs, if of wood, should have stringers or supports of heavy hard pine or of iron; if of iron, flat pieces of sheet lead should be sunk in each tread or sinkage filled with asphalt; the rise should never be more than 7½ inches for each step, with 11-inch treads.

From each class room there should be two doors connecting with the corridor; these doors should be hung to swing both ways; they should be fitted with new spring check, so which ever way they swing they stop on the return at the center; glass panels in these doors are necessary.

If proper stairways are put in, there is no necessity for fire escapes on the exterior, any more than it is necessary to put up unsightly ventilators on the roof if proper system of ventilation is installed. If the building is laid out as described, there can be no dark places.

(To be continued in next number.)



J. A. Schweinforth, Archt.  
Boston, Mass.

PIERCE GRAMMAR SCHOOL, PROSPECT STREET, BROOKLINE, MASS.

## Heating and Ventilation.

Topeka, Kas. Lewis and Kitchen, of Kansas City, Mo., secured the order to rebuild the system of heating in the high school.

Millbury, Mass. There was a hot contest over the heating and ventilating system for the new school house and the lowest bidder, Wills Warming & Ventilating Co., of New York, got the job.

Duluth, Minn. The American Heating Co. secured the award to install a heating and ventilating system in the new Monroe school.

Grand Rapids, Mich. Weatherly & Pulte have been doing considerable repair work on the heating and ventilating systems of some of the school houses.

Galesburg, Ill. The board entered into a contract with the American Warming and Ventilating Company for a heating system.

Hamilton, O. The Cotton, Smead Furnace Co. installed the heating systems in the Second ward school.

Columbus, O. The board gave order for smoke pipes to the Vogelgesang Furnace Co.

Lincoln, Neb. The American Warming and Ventilating Company secured the contracts for putting in place sanitary closets at Everett and Park schools.

Perry, Ia. The Ideal Heating Co., Oskaloosa, Ia., was awarded the contract for low pressure steam heating and ventilating plant for the new 6-room school.

Ames, Ia. The American Warming and Ventilating Co., Chicago, Ill., was awarded the contract for heating plant for the new 7-room school.

Cambridge, Mass. The Latin school is equipped with the Johnson electric temperature regulator.

Lansing, Mich. The Caldwell Furnace and Foundry Co., of Toledo, O., received the contract for the furnishing of flushing, automatic ventilated closets for both the South and Kalamazoo street schools.

Columbus, O. The contract for repairing eight furnaces awarded to the American Foundry and Furnace Co., of Bloomington, Ill.

Herkimer, N. Y. The repair work on the furnaces in school house on south side was done by the Northcote Warming and Ventilating Co.

## Among Boards of Education.

Little Rock, Ark. The board is considering the advisability of changing the system of graduation averages from examination to promotion averages.

Saginaw, Mich. The teachers are required to examine the books and property of the board in the possession of the pupils at least twice a year, as directed by the superintendent, and to assess fines for damaged or destroyed books and property.

Omaha, Neb. The board has decided not to enter into a contract with married women teachers whose husbands are in good health or who possess sufficient means to support their families.

## COFFEE AND HEART DISEASE

Slowly and Surely Affects the Heart's Action.

"My heart seemed to be jumping out of my body one morning after I had used some coffee, clear, without cream or sugar—for I had been told that coffee would hurt me if used that way. We were all greatly frightened at the serious condition of my heart until I remembered that it might be from the coffee.

"So when the trouble passed off, I concluded never to use coffee again. It had hurt me greatly, used in the ordinary way with cream and sugar, but I had hoped that it would be less harmful without the cream and sugar, but the result was no better.

"Since that time we have been using Postum Cereal Food Coffee and my heart has never troubled me at all. We are all delighted with the Postum because we know how to make it and know how valuable it is as a health beverage.

"In speaking to a friend lately about Postum Cereal, she said she did not like it. I found the reason was that it had not been made properly. After I told her to take four heaping teaspoons of Postum to the pint of water and let it boil full fifteen minutes after the real boiling started, she was greatly delighted with it and has been using it since and has been very much better in health. Yours truly,"

Mrs. L. S. McEllimmey, 1218 G St., N. W., Washington, D. C.



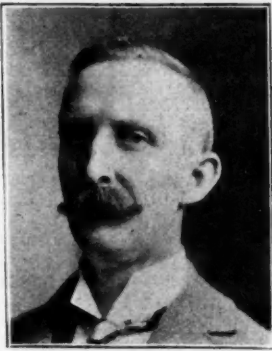
### Newly Elected Presidents of Boards of Education.

South Washington, Pa., W. T. R. Wallace; Media, Pa., Edgar T. Miller; Hot Springs, Ark., Dr. V. H. Hallman; Waverly, Pa., A. D. Dean; Decatur, Ind., Dora Erwin; North Washington, Pa., H. W. Temple; Altoona, Pa., Dr. Stayer; Hagerstown, Md., F. W. Mish; Sharpsburg, Pa., Joseph E. Gilbert; Whitefield, Ill., Cary Fosdick; Borlus, Neb., Charles Seeber; West Saginaw, Mich., L. T. Durand; Hillyard, Wash., Monroe Denman; Omaha, Neb., B. F. Thomas; West Plains, Mo., J. P. Breneger; Rock Island, Ill., C. B. Marshall; Antigo, Wis., J. F. Albers; Manmes, O., H. E. Riggs; Bridgetown, N. J., Charles F. Reeves; Frankfort, Ind., Q. A. Kennedy; West Mead, Pa., Frank Emig; Bethel, Pa., Louis Emerich; Eddystone, Pa., William Parsells; Ashton, Pa., Dr. M. P. Dickeson; Ridley Park, Pa., H. C. Keyes; Pottstown, Pa., Milton E. Davidheiser; Butler, Pa., C. F. McQuistion; Carlisle, Pa., A. G. Miller; Ashland, Pa., Joseph Cockill; Claysville, Pa., S. H. Jackson; Huntingburgh, Ind., H. H. Hillemeyer; O'Hara, Pa., J. J. Meyers; Springfield, O., John S. Weaver; Jenkintown, Pa., George Hamel, Jr.; Lock Haven, Pa., W. S. Harris; Gaysport, Pa., George R. Curtis; Wilkesbarre, Pa., Dr. L. L. Rogers; Homestead, Pa., John F. Hill; Erie, Pa., Paul Mueller; Noblesville, Ind., Will H. Craig; Elkhart, Ind., G. T. Barney; New Bloomfield, Pa., Jas. M. Barnett; Conewago, Pa., Israel Bowers; West Pittston, Pa., J. W. Wheeler; Susquehanna, N. Y., M. J. Ryan; Lowell, Ind., William L. Handley; Allin, Pa., E. T. Schaffner; Terre Haute, Ind., B. V. Marshall; Shippensburg, Pa., B. F. Landis; Elliot, Pa., George Gray; Irwin, Pa., D. M. Wagoner; Crawfordsville, Ind., W. F. Hulet.

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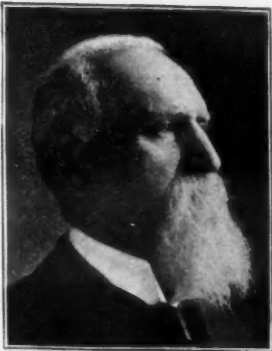
Louisville, Ky. A resolution introduced in the board provides that in the future children be promoted on their standing during the year rather than on the examinations alone.



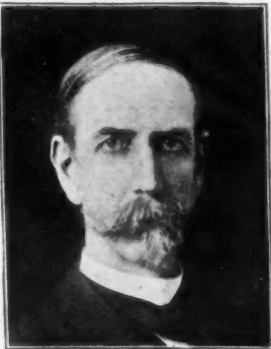
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President Board of Education,  
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Teacher (astonished)—Why, Bobby! Did you whistle like that?

Little Bobby (unabashed, although he had just uttered a shrill whistle while in class)—Yes, ma'm. Didn't you know I could whistle?

### American Song Birds

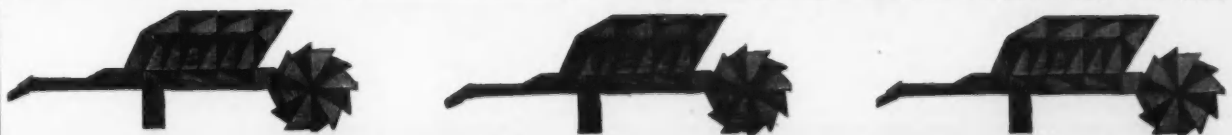
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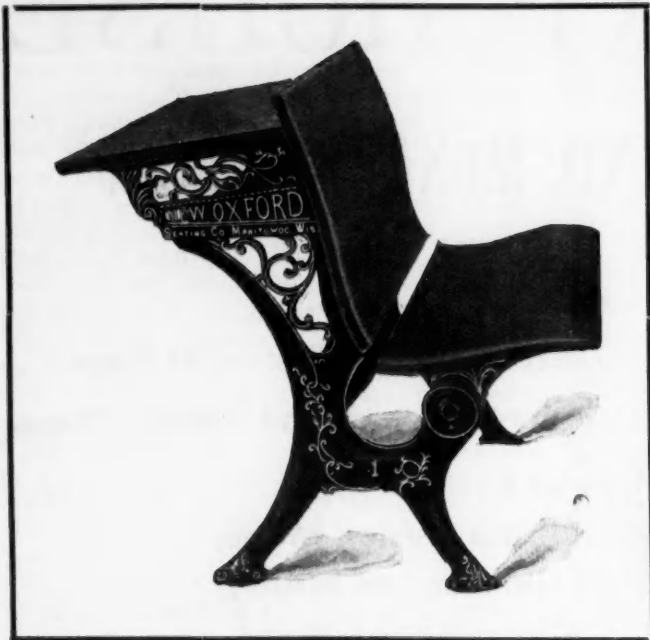
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Taken before retiring, it quiets the nerves and induces refreshing sleep.

For sale by Druggists.

### The Lesser of Two Evils.

Teacher (to pupil)—If you don't tell me the name of the boy who put the pin on my chair, I'll give you a whipping.

Pupil—Whip ahead, sir. It won't be nothin' to what that boy'll give me if I tell on him.

### No Opportunity.

Millionaire—The count and I are not on good terms. I once mistook him for a schoolmaster.

Friend—Did you apologize?

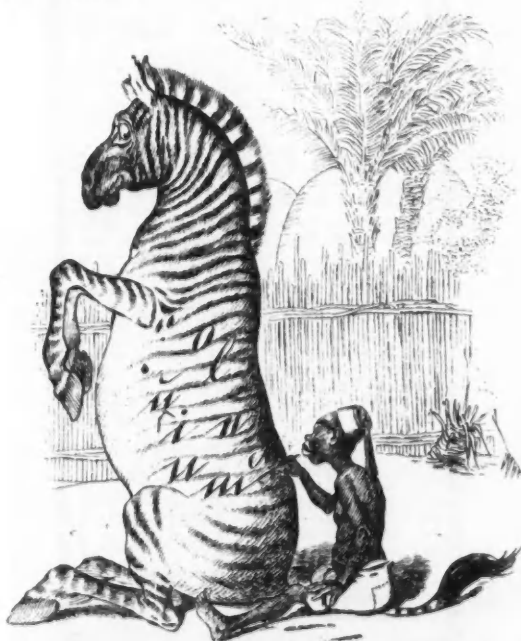
Millionaire—No. I'd be glad to apologize, but I don't know where the schoolmaster is now.

### Useful Knowledge.

"Why are you putting in so much time studying chemistry at the agricultural college?"

"I intend to go into milk production on a large scale after I have been graduated."

A school janitor found written on the black-board "find the least common multiple." He searched from garret to cellar, and reported to the superintendent next morning that it could not be found.



How the native pupils utilize the zebra in East Africa to practice penmanship.

Kinder-Anwort—Folgen-  
de wahre Begebenheit erleb-  
te eine Lehrerin in B. Die-  
selbe wollte im Anschluß  
an den Glaubensgehörigam  
Abrahams die Nutzenwen-  
dung fürs Leben machen,  
indem sie den Kindern sagte,  
daß nicht nur die Kinder,  
sondern auch die Erwachse-  
nen noch gehorchen müssen.  
Und auf die Frage: „Wem  
muß z. B. Euer Vater ge-  
horchen sein?“ bekam sie zur  
Antwort: „Der Mama?“



Teacher—What do you know about the law of gravity?

Pupil—Oh, if I snicker in church I have to read two chapters in the Bible when I get home.

A college man called recently at the SCHOOL BOARD JOURNAL office, and, being in a reminis- cent mood, told the following story:

"The queerest thing that happened while I attended college was in connection with a math- ematical problem. It was in my junior year and we were having high differential equations. We had a text book that was all the vogue then and is used some now, I believe—Bowser's cal- culus.

"There was one problem in that book that no- body had ever solved. The author never solved it, or, if he did, he kept it strictly to himself. It was about a fox that started ahead of a pack of hounds, who were all scattered about at given distances from the fox. The fox traveled due east with a certain velocity and the dogs chased him all the time, running straight towards him. The question was to find when and at what dis- tance which one of the hounds would catch the fox, having the necessary data given. It looked easy, but it wasn't.

"Well, the day we came to that section of the book, the professor adopted a new method of teaching. He sent each one of us to the board and asked us how many of the problems in the lesson assigned, which included the 'hardest one,' we had done. Now, all but one of us had heard of that 'hardest one' from members of previous classes, and we warily answered one less than the number in the lesson.

"But that unfortunate member of the class was one of the happy-go-lucky fellows who never looked at a book and yet was well up at the head of the class, and he failed to compre- hend the reason for our bashfulness, so he boldly answered that he had done them all. A wicked little twinkle came into the eye of the old pro- fessor as he remarked:

"Well, S—, you may do the 18th,' which was the 'hardest one.'"

## "BE AS CAREFUL OF THE BOOKS YOU READ AS OF THE COMPANY YOU KEEP." —PAXTON HOOD.

This remark applies equally well to Lead Pencils. Every teacher knows how important it is to have the best books in their school work, and, at the same time, no one would want to keep company with a cross-grained, poorly-made, or carelessly graded pencil. It never pays to be without one when the very best that is possible to make can be obtained from the

## JOSEPH DIXON CRUCIBLE CO.,

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"S— never turned a hair, although the rest of the gang began stuffing their handkerchiefs in their mouths to prevent an outburst. S— looked at the thing for a minute and then he began to put down things on the board.

"Wonderful as it may seem, he had the problem done inside the hour, and nobody has been able to prove that his solution wasn't right."

Citizen—Johnny, you tell me you have been to Sunday school?

The Bad Boy—Yes, sir.

Citizen—But, Johnny, your hair is wet.

The Bad Boy—Yes, sir; it's a Baptist Sunday school.



### A Dandy.

Mrs. Hayrick—"Jonathan writes from college that he caught varioloid two days ago and has been laid up since."

Farmer Hayrick—"Wa-al, Varioloid must be a dandy pitcher if Jonathan couldn't hold him—yew can bet on that.

A girl in a domestic economy class gave the following directions for sweeping a room: "Cover up the furniture with dust sheets, scatter damp tea leaves over the carpet, then carefully sweep the room into a dustpan and throw it out of the window."

### Didn't Know of Columbus.

Cumso—Well, Johnuy, how do you like your new teacher!

Johnny—Not much. She don't know any- thing. To-day she asked me who discovered America.

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### Text Book Adoptions.

Rochester, N. Y. Prang system of drawing.

Des Moines, Ia. Frye's geography, Speer's advanced arithmetic, McHenry's grammar, mother tongue book, Baldwin's lights to literature and stepping stones to literature.

Chicago, Ill. Lights of literature, published by Rand McNally & Co.

Jordan's animal life, Appleton & Co.

Plant studies, Appleton & Co.

Animal studies, in place of Boyer's manual, D. C. Heath & Co.

Meyer's ancient history.

Thatcher & Schwill's mediaeval and modern history, Schribner's Sons.

Coman & Kendall's history of England, Macmillan & Co.

McLaughlin's American history, Appleton & Co.

Council Bluffs, Ia. Crew's elementary Physics, published by Macmillan, and Blaisdell's practical physiology, published by Ginn & Co.

Evansville, Ind. Leading Facts of American history and Jenkins' physiology.

Milwaukee, Wis. Pancoast's introduction to English literature and Smiley & Storke's beginner's latin book.

Chicago, Ill. Young Judson's revised government and Thatcher & Schwill's modern and mediaeval history.

Cincinnati, O. Patterson's word book.

Oil City, Pa. Milne's arithmetic and McMaster's history.

Minneapolis, Minn. Hall's arithmetic and Frye's geography.

Rochester, N. Y. Tarr's physical geography, Tarr's elementary geology and Avery's elementary chemistry.

Midland, Mich. Werner's arithmetic.

Rochester, N. Y. Daniel's Latin grammar, Caesar, revised edition, Cicero, revised edition; Greenough & Kittredges Virgil; Goodwin's Greek grammar, and Goodwin's Anabasis.

Burlington, Ia. Lehrbuch der Deutschen Sprache. Foundation of Latin, Junior Latin book and Davenport's Zoology.

Terre Haute, Ind. Adams' European history and Johnson's Cicero.

Grand Junction, Ia. Lights of literature readers.



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Gloucester, N. J. Prince and Wentworth arithmetics.

Cincinnati, Ohio. American Word Book.

Waukon, Ia. Cyr's readers and Gage's Introduction to physical Science.

Racine, Wis. Goodwin & White's anabasis with vocabulary, Seymour's school liad, books 1 and 3, Collier &

Daniell's beginners Greek composition and Walker's physiology; also Hunt's primary speller for the first, second and third grades in the ward schools.

Albion, Mich. Tarr's physical geography, Herrick & Damon's composition and rhetoric and the natural geography.

Chicago, Ill. Five-cent classics and lights of literature, published by Rand McNally & Co., Lancaster's manual of English history, Metcalf's English grammar, animal life, plant studies, animal studies, Meyer's ancient history, Thatcher & Schwill's mediaeval and modern history, Coman & Kendall's history of England, McLaughlin's American history and Young-Judson's classbook in civil government.

Bellefontaine, O. The Lake Township school board has adopted the following books: Ray's arithmetic, Baldwin's readers, Metcalf's English. Eclectic history, national geography, Barnes' vertical writing and McGuffey's spellers.

Worcester, Mass. Wentworth & Hill's text book on physics. The following books have been ordered placed on the supplementary list: Child Life, a third reader; child life, a fourth reader; the graded literature series of readers; Four American Pioneers, Caesar and Pompey in Greece, Le Roi de Montagnes, A History of England, Deutsche Sprachlehre, German Bible (die Heilige Schrift).

Whitewater, Wis. Sheldon's first, second and third readers.

Henderson, Ky. Baldwin's readers and primers, Rice's natural speller, Hall's arithmetics, Lyte's English grammar, Egglestone's histories and Gorman's language lessons.

Columbus, O. Wentworth's geometry.

Wichita, Kan. Favorite songs and hymns for high school.

Fort Smith, Ark. B. F. Johnson Publishing Co.'s copy books and readers.

Zanesville, O. Beacon Long collection and the high school ideal.

Elmira, N. Y. Judson's Young American.

St. Joseph, Mo. Sadlet's essential of business arithmetic, Williams & Rogers' bookkeeping, Bly's business law, Myer's mediaeval and modern history, Scudder's, Sallust's Catline, Bacon's New French course and Joyne's minimum French grammar.

Williamsport, Pa. Finch readers.

West Des Moines, Ia. Fry's geography.

Columbus, O. McLaughlin's elements of Political Economy and Fitch's new commercial law.

Eau Claire, Wis. Walsh arithmetic series and Rand McNally third and fourth readers.

Braddock, Pa. Wentworth's algebra, Stowe's physiology and Montgomery's student's history. San Antonio. The Webb & Ware drawing system.

Port Jervis, N. Y. Butler, Sheldon & Co.'s progressive course in reading and Maynard, Merrill & Co.'s literature readers.

Quincy, Ill. New era series of readers, published by Eaton & Co.

Alton, Ill. Averton's advanced physiology and Painter's English literature.

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Milwaukee, Wis. The Modern Spelling Book. Coldwater, Mich. Bartlett's series of language book.

Newton, Kan. Halleck's psychology and Lounsbury's history of the English language.

Morristown, Pa. Masterpieces of British literature, Our Feathered Friends, Grimmell; American Inventions and Inventors, desk book; Rudiments of Algebra, Fisher & Schwatt; Secondary Algebra, Fisher & Schwatt; Commercial and Industrial Bookkeeping, Sadler & Rowe Company; Elementary Geology, Tarr.

Westport, Conn. The Normal Readers, Barnes' National Vertical System of writing, Stickney's spelling, Fish's Arithmetic, Grammar, Tarbell's Language lessons, Frye's Geography Eggleston's history, Stowell's physiology, supplementary reading. Cyr's readers, American history stories and the Youth's Companion series.

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## Text Book News.

Since Dr. Brumbaugh has been appointed commissioner of education for the Island of Porto Rico some question has arisen as to the authorship of the Brumbaugh readers. The publishers, Christopher Sower & Co. of Philadelphia positively assert that Dr. Baumbaugh practically gave one year of his time in the making of the readers. The he, and he alone, is the author.

Messrs. Benj. H. Sanborn & Company have in press, or ready for publication in the autumn:

Cicero, Select Orations, by Dr. B. L. D'Ooge, Professor in the State Normal School, Michigan. The book will contain the orations usually read in the preparatory schools, the usual introduction and summaries of chapters, excellent notes, a carefully selected vocabulary and nearly one hundred illustrations.

The Art of Translating, by Dr. Herbert C. Tolman of Vanderbilt University. This book is designed for teachers in Latin, Greek, French or German.

A Composition and Rhetoric, by Dr. Lewis W. Smith, of Tabor college, and James E. Thomas,

A. M., of the Boston English High School. This book is to be so arranged and issued as to meet the requirements of the smaller as well as the most thorough and advanced courses in a secondary school.

Huston, Tex. The question of furnishing free text books the board considers as impracticable at the present time, though something may be done later in this direction.

Minneapolis, Minn. Uniformity in text books during the coming year has been decided upon by the board. A uniform system of text books this city has not had for the past fifteen years.

School books should be small enough to be easily handled, and ought to be printed in easily legible type on dull surface paper. Cohn insists that in schools all books should be forbidden that contain smaller type than long primer (about 9 point) and a less interval than one-tenth of an inch between the lines. No line should be over four and one-half inches long, nor contain more than sixty letters.

Atlanta is the only free-text book city in the south. It is to be inferred that the south is reluctant to allow free text books on account of the large negro population.

went something after the fashion of a "merry-go-round," and when the last book man closed his plea, the members of the board looked at each other in a dazed sort of way "and silently stole away." The board members in their slumbers for several nights following had pleasant dreams about text books, and at their last meeting were prepared to vote for the best books.

As to the methods of selecting text books in various cities the prevailing practice is for the board of education or a committee thereof to name the books to be used. In eighteen cases the board alone acts. In twenty-five cases there is joint consultation of the board and superintendents. In four cases the superintendent acts after consultation with a committee of teachers. In two cases the superintendent confers with principals. In three cases the board, the superintendent and principals confer. In one case the board, the superintendent and a committee of teachers decide. In five cases the superintendent alone selects.

State boards of Virginia, Kentucky and Indiana prepare a selected list of text books from which the principals or the local supervisors may choose. New York, New Jersey, Nebraska, Delaware and New Mexico provide by law for free text books. In other states the decision is left to local authorities. In a majority of the states the tendency is against selection by one person. California prints its own books.

In the Cambridge Literature Series, Macaulay's Essays on Milton and Addison (nearly ready) edited by Dr. J. Griffith Ames, late of Kenyon College; The Sir Roger de Coverley Papers, edited by Frederick L. Bliss, Principal of the University School, Detroit.

Chicago, Ill. The report of the special committee on text books which has been adopted, recommends that in place of five text books in mathematics in the elementary schools only three be used. The report continues as follows: "Each of such books shall contain arithmetic and such of the elements of algebra and geometry as are adapted to the mental states of the pupils."

The pupils will get their geographical data from one book instead of two, as has been the custom. Three books on physiology and hygiene are thought to be a pair too many. The board is still willing to buy two song books for each of the elementary pupils, but those in the high schools will in the future have to get along with only one.

At the annual convention of the Allied Printing Trades of Illinois, recently held, resolutions were adopted demanding that all school books used in the state be printed in the State and by firms employing union labor. A committee was appointed to carry out the purpose of the resolution.

Boston, Mass. The school department has destroyed forty tons of old school books and slates, to prevent the spread of any contagion which may be lurking in their leaves and crevices. This apparently wanton destruction is an excellent precautionary measure.

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## School Board Journal

### New School Buildings.

Santa Barbara, Cal. A new school house is to be built in the Seventh ward.

Longmont, Colo. A new school house according to plans prepared by Architect M. W. Fuller, Ft. Collins, Colo.

Anacostia, D. C. A new 8-room school is to be erected on Nichols avenue.

Cocoa, Fla. The building of the new school house is progressing rapidly.

Lexington, Ky. Bids are being advertised for the erection of new school on West Second street.

Alton, Ill. Architect Lucas Pfeifferberger, 102 W. Third street, has prepared plans for three portable schools.

Lake Forest, Ill. A \$15,000 grammar school is about to be erected.

Peotone, Ill. A new \$12,000 school.

Chicago, Ill. Write to the business manager of the board of education, 1110 Schiller building, regarding the erection of new school buildings.

Carlyle, Ill. Contract to erect new school building awarded.

Lake Mills, Ia. A new school house. Plans were prepared by Ruehner & Jacobsen, architects, Manhattan building, St. Paul, Minn.

Bangor, Me. A new school house according to plans of Architect W. E. Mansur, Wheelwright & Clark building.

Chestertown, Md. Plans for a two-story school, 40x60 feet, have been prepared. To cost \$8,000.

Glenarm, Md. A new school.

Springfield, Mass. Architect G. W. Taylor has completed plans for a new school.

Lynn, Mass. A new school house is being built on Lynnfield street.

Collinsville, Mass. A new school house. Plans were prepared by Architect Warren L. Floyd, 18 Shattuck street, Lowell, Mass.

Sparta, Mich. Plans are being prepared for a new school house here by Architect C. E. Osgood, of Grand Rapids, Mich. To cost \$10,000.

Marine, Mich. A new \$20,000 school house.

Grand Rapids, Mich. The laying of the corner-stone for the new eastern high school has taken place.

Alden, Mich. A new school according to plans of Architect F. E. Walker, Traverse City, Mich.

Marshall, Mich. Contract for the erection of new high school let.

Iron Mountain, Mich. A new school, 33x67 feet, two stories.

Battle Creek, Mich. A new 10-room school. To cost \$22,000.

Detroit, Mich. A new 15-room school in the vicinity of Morrell and Fort streets.

Akely, Minn. The erection of a new school is contemplated.

Moose Island, Minn. A new school.

Tenney, Minn. A new school house. Write F. W. Hungerford, clerk school board.

Ely, Minn. Write H. C. Kelly, clerk school board, regarding new school house to be built.

Natchez, Miss. A new school. Plans drawn by Architect J. W. Gaddis, Vincennes, Ind. To cost \$25,000.

Chillicothe, Mo. Write J. M. Dunn regarding the erection of a new school house.

South St. Joseph, Mo. A \$10,000 addition is to be made to school house.

Oxford, Neb. Write D. D. McIntyre regarding the erection of a new school.

Newman Grove, Neb. A new school house.

South Plainfield, N. J. Contract for building new school house awarded.

Barneget, N. J. The board of education is contemplating the erection of a new school house.

Toms River, N. J. A new school house is to be erected.

Redbank, N. J. Contracts for the erection of a new school soon to be let.

Williston, N. D. A new school house is in course of construction.

Cleveland, O. A new school at corner Tod and Waterman streets.

Kenton, O. Bids for the erection of a new school have been asked.

Urbana, O. A new 6-room school.

Akron, O. The plans prepared by Architects Chas. Henry & Son have been adopted by the board of education for a new school house, which, it is estimated, will cost \$18,000.

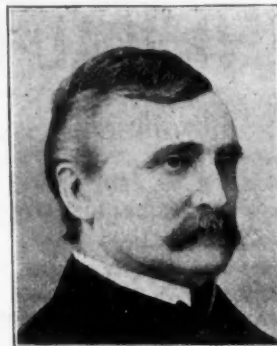
Allegheny, Pa. An annex is being made to the Fifteenth ward school.

McKeesport, Pa. Architect W. F. Wilson has plans for a 4-room, two-story school in Highland Park.

Erie, Pa. A new 10-room school.

Steelton, Pa. Work has commenced on erection of new high school building.

Whiteville, Tenn. A new school building.



L. B. CASWELL,  
Treasurer School Board,  
Atkinson, Wis.



MRS. HENRY LITCHFIELD WEST,  
Member Board of Education,  
Washington, D. C.

Comanche, Tex. A new school house.

Texarkana, Tex. Architect Sidney Stewart has prepared plans for a school house for this city.

New Lisbon, Wis. A new school house is under course of construction here.

Barron, Wis. A new school according to plans of Architects Omeyer & Thorl, St. Paul, Minn. To cost \$5,500.

Pardeeville, Wis. The board of education engaged Architect C. Williams to prepare plans for a \$10,000 school building.

Hayward, Wis. A new school according to plans of Architects Rawson & Pannack.

De Pere, Wis. A new school is in course of construction in the Fourth ward.

### A Case of Southern Hospitality.

Dan E. Erickson, of the Alfred L. Robbins-Martin Company, of New York, tells a story which illustrates the hospitality which pervaded the people of Charleston, S. C., during the N. E. A. meeting.

"Late one afternoon," said Mr. Erickson, "while in charge of my exhibit, Dr. C. M. Jordan of Minneapolis rushed in and demanded to know the whereabouts of the men in charge of Hibernian Hall, which was located immediately above our exhibit rooms. Prof. A. B. Hinsdale, of Ann Arbor, Mich., was to read a paper in the evening, and as the hall was not as yet equipped with a desk or reading table, it was feared that the Michigan educator would refuse to appear if the missing piece of furniture was not supplied.

"With more readiness than discretion I saddled upon myself the task, and after visiting the neighboring furniture shops I still found myself without the much-needed table. It was now 7:30 o'clock, and in thirty minutes the show would begin. I was desperate.

"Finally a happy thought struck me, and I dropped into the Y. M. C. A. rooms expecting to find something that would serve the purpose. But with the same result. I then asked for the name of one of the Charleston ministers, called his reverence upon the 'phone and begged him to loan me his pulpit.

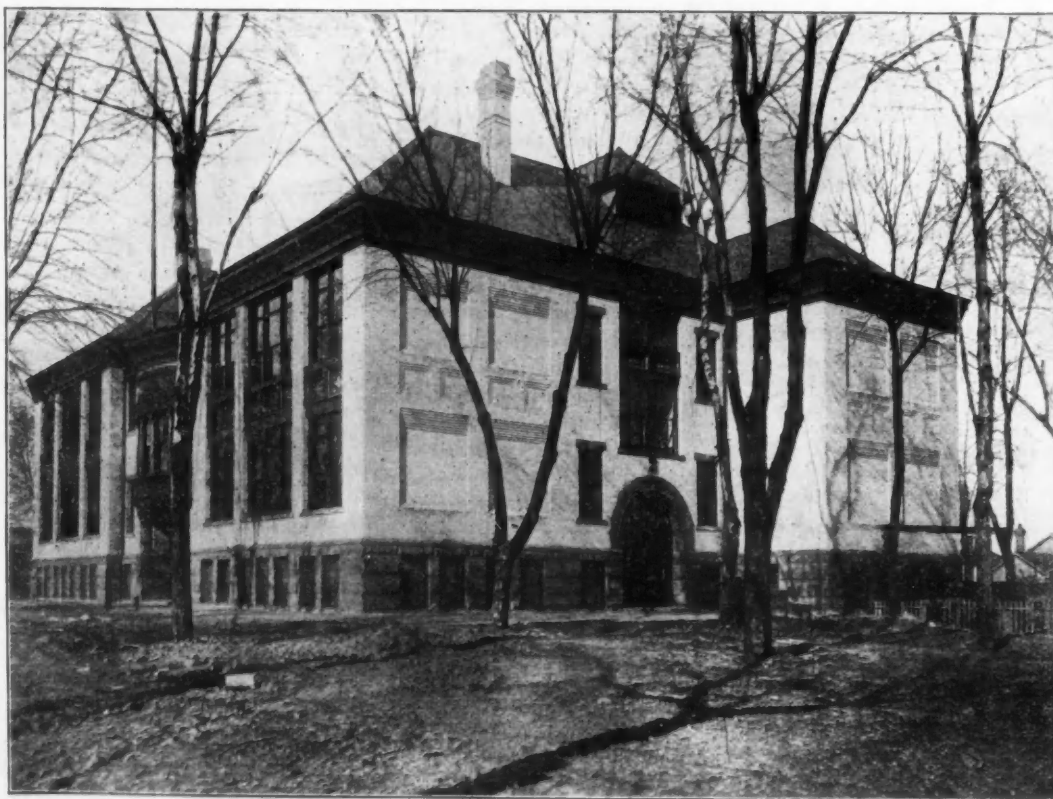
"I did not see the effect my request had upon him, but I thought I heard him gasp. Before he could collect his thoughts he had consented. With the aid of two gentlemen of color, we got the pulpit, used it, and returned it the next morning."

The expression of the Irish janitor when he saw the pulpit leaving the church told volumes of suppressed profanity. But the pulpit incident was, in my judgment, a genuine case of southern hospitality.

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## School Board Journal

### Book Reviews.

**THE YOUNG FOLKS' CYCLOPEDIA OF PERSONS AND PLACES.** By John Denison Champlin, A.M., Late Associate Editor of the American Cyclopaedia. With numerous illustrations. Third edition, revised. 958 pages. Published by Henry Holt & Company, New York. (For sale at Des Forges & Company, Milwaukee, Wis.)

This is a work that will prove of inestimable value to boys and girls and therefore should find a place in the school library and the home circle. Nowadays the very young are readers of the newspapers, and if but shown the value of this cyclopedia, they will make much use of it. Recent history has made a work such as this indispensable.

The language throughout the book is simple, within the comprehension of children, and the technical terms employed are fully explained. The abbreviations used are only such as are in every-day use. The etymologies are usually given at the ends of the articles so as not to destroy the continuity of the narrative, but in general the ordinary cyclopedic method has been followed, which is well, for it accustoms children to the forms in use in larger works, to which this cyclopedia may be regarded, in a measure, as a stepping stone.

The present edition is a thorough revision and correction of the text, which has been collated with the best authorities and brought down to date, and such names of persons and places have been added as have become prominent of late years, and also those events that have marked the world's progress. The illustrations are many and exceedingly fine.

### An Open Letter.

THE PORTER MILITARY ACADEMY,  
Charleston, S. C., July 11, 1900.

MESSRS. FISHER AND SCHWATT,  
GENTLEMEN:—I have examined three of your books on Algebra and it affords me pleasure to express my opinion of their merit.

You have written the most logical treatise on Algebra that I have read, with a simplicity and cleanness of style, and purity of diction, that cannot fail but impress all who read your work.

Your books indicate decided originality, its mathematical laws being evolved, not from the old ruts of illustration, but from within the province of the science itself.

It is not possible in a brief review to comment upon the many points of excellence and refreshing originality of your work, but I must especially remark upon the ingenuity displayed in establishing the method of subtraction (including the subtraction of a greater from a lesser number), the easy conception of a negative number, the safe-guards against mistakes in the roots of an equation afforded by excepting zero as an admissible divisor of each member, and by the introduction of the idea of an "equivalent equation." The type, too, is excellent.

To those desiring a logical treatment of a logical science, an original presentation of a hackneyed subject, an extension of the varieties of an equation to a new class requisite for guarding against erroneous roots, the induction of laws and principles operative for a science and evolved from within the science to which those laws apply.

I recommend your work believing that the best results will follow from its teaching not alone through knowledge of principles acquired in its study, but also through the benefit derived from practice in the correct reasoning by which those principles are demonstrated.

In my opinion, the "Rudiments" are well suited to children taking a one year course in Algebra, while "Secondary Algebra" is well adapted to the general school course, and both are presented in so simple a manner that they can be readily understood by youthful minds of school boys. I expect to introduce the "Secondary Algebra" into my class next October.

Yours respectfully,

CHAS. S. COLCOCK.

Head Master of The Porter Military Academy.

Rutland, Vt. An amendment to the regulations regarding pupil teachers read: "Before the opening of the schools in the autumn of each year the superintendent shall submit to the board a scheme of instruction and practice in the art of teaching to be carried out during

the ensuing school year; and the board, after approving or modifying such scheme, shall designate the persons who are to receive its benefit as pupil teachers."

FRANK J. CHENEY makes oath that he is senior STATE OF OHIO, CITY OF TOLEDO, } ss.  
LUCAS COUNTY,  
partner of the firm of F. J. CHENEY & Co., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of CATARRH that cannot be cured by the use of HALL'S CATARRH CURE.

FRANK J. CHENEY.  
Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1886.

{SEAL.}

A. W. GLEASON,

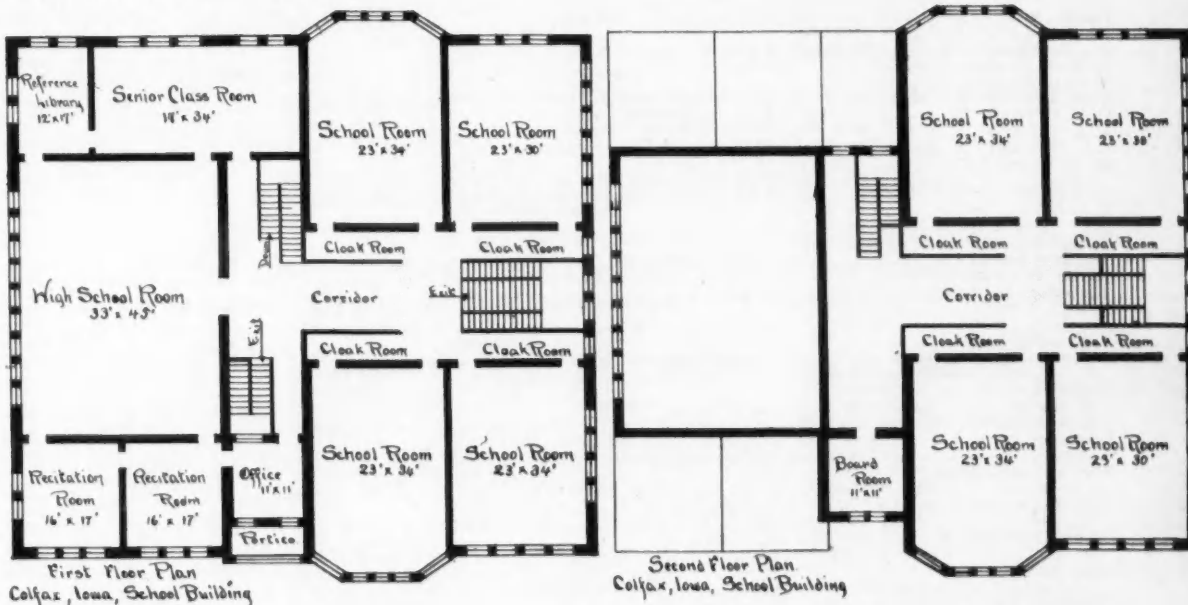
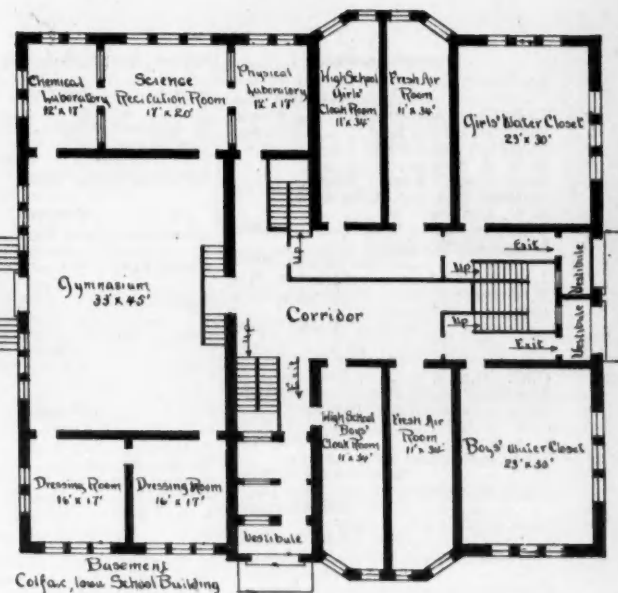
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Hall's Family Pills are the best.

The W. J. C. Dulany Co. of Baltimore, Md., has filed formal charges against the Baltimore County School Board. The latter awarded its contract for school supplies to J. H. Medairy & Co., of same city at a figure \$1,000 higher than the Dulany concern and \$700 higher than J. W. Bond Co. The charges state that the contract was unfairly and illegally awarded and urge the removal of Messrs. Todd, Wilson, Arthur and Enson, the four commissioners. Messrs. Krout and Russell voted for the Dulany proposition. The matter will come before Gov. Smith for action. The contending school supply firms are old and well known.

San Antonio, Tex. The following is a rule laid down for the school trustees of Bexar county by the county superintendent: "Drunkards or other immoral characters are not to be contracted with as teachers for schools."



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# DIRECTORY SCHOOL SUPPLY AND EQUIPMENT DEALERS

This directory has been prepared for the convenience of Secretaries, Boards of Education and school officials who contemplate the erection of school houses and the purchase of School Furniture, Supplies and Equipment. The names of reliable firms only are listed. Write them for estimates and other information.

**Apparatus.**  
McIntosh Battery & Optical Co. Chicago  
L. E. Knott Apparatus Co. Boston  
Educational Ass'n. Chicago  
Standard School Fur. Co. Chicago  
E. W. A. Rowles. New York, Chicago  
Central Sch'l Supply House, Chicago  
Chicago Lab. Sup. & Scale Co. Chicago  
A. H. Andrews Co. Chicago  
Franklin Educational Co. Boston  
School & Office Supply Co. Grand Rapids, Mich.  
L. A. Murray. Kilbourn, Wis.  
E. G. Smith. Columbia, Pa.  
Chas. W. Holbrook, Windsor Locks, Conn.

**Artificial Slate.**  
O. C. Clark & Co. Cleveland, O.  
Standard School Fur. Co. Chicago  
Central School Supply House C. F. Weber & Co. Kilbourn, Wis.  
American School Furniture Co. New York, Chicago  
Grand Rapids School Furniture Co. New York, Chicago  
Thos. Kane & Co. Works, New York, Chicago  
Cleveland School Furniture Works, New York, Chicago  
Chandler Adjustable Chair & Desk Works, Boston

**Bells.**  
Meneely Bell Co. Troy, N. Y.  
McShane Bell Foundry Baltimore, Md.  
Central Sch'l Supply House, Chicago  
Peckham, Little & Co. New York City  
Standard School Fur. Co. Chicago  
E. W. A. Rowles. Chicago  
E. G. Dann & Co. Chicago  
A. H. Andrews Co. Chicago  
C. F. Weber & Co. Kilbourn, Wis.  
L. A. Murray. Kilbourn, Wis.  
J. L. Hammett Co. Boston-New York  
St. Louis Bell Foundry, St. Louis, Mo.

**Black Boards. (Slate.)**  
E. J. Johnson & Co. New York  
O. C. Clark & Co. Cleveland, O.  
Educational Ass'n. New York-Chicago  
Standard School Fur. Co. Chicago  
Central Sch'l Supply House, Chicago  
E. G. Dann & Co. Chicago  
E. W. A. Rowles. Chicago  
The Caxton Co. Chicago  
A. H. Andrews Co. Grand Rapids, Mich.  
Thomas Kane & Co. Kilbourn, Wis.  
J. L. Hammett Co. Boston-New York  
Potter & Putnam Co. New York  
Sterling School Supply Co. Mt. Sterling, O.

**American School Furniture Co.**  
Grand Rapids School Furniture Co.  
Thos. Kane & Co. Works  
Cleveland School Furniture Works  
Chandler Adjustable Chair & Desk Works

**Blackboards—(Composition.)**  
O. C. Clark & Co. Cleveland, O.  
Jas. L. Foote. Slattington, Pa.  
The Holly Slicate Slate Co. New York  
Central Sch'l Supply House, Chicago  
E. G. Dann & Co. Chicago  
Standard Sch. Furn. Co. Chicago  
E. W. A. Rowles. Chicago  
C. F. Weber & Co. Kilbourn, Wis.  
L. A. Murray. Kilbourn, Wis.  
J. L. Hammett Co. Boston-New York  
Sterling School Supply Co. Mt. Sterling, O.

**Blinds.**  
Central Sch'l Supply House, Chicago  
Standard School Fur. Co. Chicago  
E. W. A. Rowles. Chicago  
A. H. Andrews Co. Chicago  
L. A. Murray. Kilbourn, Wis.  
J. L. Hammett Co. Boston-New York  
Sterling School Supply Co. Mt. Sterling, O.

**Badges.**  
Bande & Upmeyer. Milwaukee  
Central Sch'l Supply House, Chicago

**Book Covers.**  
Holden Book Cover Co. Springfield, Mass.  
Triangular Book Cover Co. Syracuse, N. Y.  
Commencement Stationery, Peckham, Little & Co. New York

**Central School Supply House**  
Standard School Fur. Co. New York-Chicago  
E. A. W. Rowles. New York, Chicago  
E. G. Dann & Co. New York, Chicago  
The Caxton Co. New York, Chicago  
J. L. Hammett Co. Boston-New York  
Sterling School Supply Co. Mt. Sterling, O.

**Crayon.**  
American School Furniture Co. New York, Chicago  
Grand Rapids School Furniture Co. New York, Chicago  
Thos. Kane & Co. Works, New York, Chicago  
Cleveland School Furniture Works, New York, Chicago  
Chandler Adjustable Chair & Desk Works, Boston

**Charts.**  
O. C. Clark & Co. Cleveland, O.  
Peckham, Little & Co. New York  
Thomas Kane & Co. Chicago  
Educational Ass'n. Chicago  
Standard School Fur. Co. Chicago  
A. H. Andrews Co. Chicago  
E. G. Dann & Co. Chicago  
Western Pub. House. Chicago  
E. W. A. Rowles. Chicago  
Central Sch'l Supply House, Chicago  
Century School Supply Co. Chicago  
School & Office Supply Co. Grand Rapids, Mich.  
L. A. Murray. Kilbourn, Wis.  
J. L. Hammett Co. Boston-New York  
Sterling School Supply Co. Mt. Sterling, O.  
Potter & Putnam Co. New York

**Diplomas.**  
Central Sch'l Supply House, Chicago  
E. W. A. Rowles. Chicago  
Standard School Fur. Co. Chicago  
E. G. Dann & Co. Chicago  
Oliver Adams Pub. Co. Chicago  
Peckham, Little & Co. New York  
Sterling School Supply Co. Mt. Sterling, O.

**Drawing Tables.**  
Prang Educational Co. Boston-New York-Chicago

**Dry Closets.**  
Am. Warming & Ventilating Co. Chicago  
Peck-Williamson Co. Cincinnati, O.  
Lewis & Kitchen. Kansas City, Mo.

**Erasers.**  
O. C. Clark & Co. Cleveland, O.  
Peckham, Little & Co. New York City  
W. H. Lendergon. Duncan  
J. M. Olcott & Co. New York-Chicago  
Thomas Kane & Co. Racine, Wis.  
Educational Ass'n. Chicago  
Standard School Fur. Co. Chicago  
E. W. A. Rowles. Chicago  
Central Sch'l Supply House, Chicago  
The Caxton Co. Chicago  
A. H. Andrews Co. Chicago  
C. F. Weber & Co. Kilbourn, Wis.  
L. A. Murray. Kilbourn, Wis.  
J. L. Hammett Co. Boston-New York  
Sterling School Supply Co. Mt. Sterling, O.  
Potter & Putnam Co. New York

**Fire Escapes.**  
National Iron Co. Reed City, Mich.

**Flags.**  
O. C. Clark & Co. Cleveland, O.  
J. A. Joel & Co. New York  
Peckham, Little & Co. Chicago  
Central Sch'l Supply House, Chicago  
Thomas Kane & Co. Racine, Wis.  
Educational Ass'n. Chicago  
E. W. Rowles. Chicago  
Standard School Fur. Co. Chicago  
A. H. Andrews Co. Chicago  
E. G. Dann & Co. Chicago  
C. F. Weber & Co. Kilbourn, Wis.  
L. A. Murray. Kilbourn, Wis.  
J. L. Hammett Co. Boston-New York  
Sterling School Supply Co. Mt. Sterling, O.

**Globes.**  
O. C. Clark & Co. Cleveland, O.  
Central Sch'l Supply House, Chicago  
Thomas Kane & Co. Racine, Wis.  
Educational Ass'n. Chicago  
Standard School Fur. Co. Chicago  
E. W. A. Rowles. Chicago  
J. M. Olcott & Co. Chicago  
E. G. Dann & Co. Chicago  
Century School Supply Co. Chicago

The Caxton Co. Chicago  
A. H. Andrews Co. Chicago  
C. F. Weber & Co. Chicago  
Rand-Mc Nally & Co. Kilbourn, Wis.  
Peckham, Little & Co. New York  
J. L. Hammett Co. Boston-New York  
Sterling School Supply Co. Mt. Sterling, O.  
Potter & Putnam Co. New York  
American School Furniture Co. New York, Chicago  
Grand Rapids School Furniture Co. New York, Chicago  
Thos. Kane & Co. Works, New York, Chicago  
Cleveland School Furniture Works, New York, Chicago  
Chandler Adjustable Chair & Desk Works, Boston

**Heating and Ventilation.**  
The Powers Regulator Co. Chicago  
Am. Warming & Ventilating Co. Chicago  
Lewis & Kitchen. Kansas City, Mo.  
Peck-Williamson Co. Cincinnati, O.

**Ink and Ink Wells.**  
O. C. Clark & Co. Cleveland, O.  
Carter's Ink Co. New York-Chicago  
H. D. Kirk. Chicago  
Thomas Kane & Co. Chicago  
Central Sch'l Supply House, Chicago  
Educational Ass'n. Chicago  
The Caxton Co. Chicago  
E. G. Dann & Co. Chicago  
Standard Sch. Furniture Co. Chicago  
E. W. Rowles. Chicago  
A. H. Andrews Co. Chicago  
C. F. Weber & Co. Kilbourn, Wis.  
L. A. Murray. Kilbourn, Wis.  
Peckham, Little & Co. New York  
J. L. Hammett Co. Boston-New York  
Sterling School Supply Co. Mt. Sterling, O.  
Potter & Putnam Co. New York

**Kindergarten Supplies.**  
Smith & White Mfg. Co. Holyoke, Mass.  
J. W. Schermerhorn & Co. New York  
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E. W. A. Rowles. Chicago  
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J. L. Hammett Co. Boston-New York

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Eagle Pencil Co. New York  
Joseph Dixon Co. Jersey City, N. Y.

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McIntosh Stereopticon Co. Chicago  
Central School S. House. Chicago

**Maps.**  
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Peckham, Little & Co. New York  
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E. W. A. Rowles. Chicago  
E. G. Dann & Co. Chicago  
A. H. Andrews Co. Chicago  
C. F. Weber & Co. Kilbourn, Wis.  
L. A. Murray. Kilbourn, Wis.  
American School Furniture Co. New York, Chicago  
Grand Rapids School Furniture Co. New York, Chicago  
Thos. Kane & Co. Works, New York, Chicago  
Cleveland School Furniture Works, New York, Chicago  
Chandler Adjustable Chair & Desk Works, Boston

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W. C. Toles & Co. Irving Park, Chgo  
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Educational Ass'n. Chicago  
E. W. A. Rowles. Chicago  
Standard S. F. Co. Chicago  
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Peckham, Little & Co. New York  
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E. G. Dann & Co. Chicago

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O. C. Clark & Co. Cleveland, O.  
F. H. Cook & Co. Leominster, Mass.  
E. W. A. Rowles. Chicago  
Standard School Fur. Co. Chicago  
A. B. Dick & Co. Chicago  
E. G. Dann & Co. Chicago

**Central Sch'l Supply House, Chicago.**  
A. H. Andrews Co. Chicago  
J. L. Hammett Co. Boston-New York  
C. F. Weber & Co. Chicago  
Peckham, Little & Co. New York  
Sterling School Supply Co. Mt. Sterling, O.

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Franklin Educational Co. Chicago  
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E. H. Sargent & Co. Chicago

**Relief Globes.**  
Relief Maps.  
E. W. A. Rowles. Chicago  
Western Pub. House. Chicago  
Central Sch'l Supply House, Chicago  
E. G. Dann & Co. Chicago  
A. H. Andrews Co. Chicago  
L. A. Murray. Kilbourn, Wis.

**School Furniture.**  
O. C. Clark & Co. Cleveland, O.  
Am. School Fur. Co. N. Y., Chicago  
Central Sch'l Supply House, Chicago  
Chandler Desk & Seat Co. Boston  
Cleveland School Fur. Co. Cleveland, O.  
Educational Ass'n. Chicago  
E. W. A. Rowles. Chicago  
E. G. Dann & Co. Chicago  
A. H. Andrews Co. Chicago  
Grand Rapids School Fur. Co. Grand Rapids, Mich.  
Haney School Furniture Co. Grand Rapids, Mich.  
J. M. Sander Co. Phila., Pa.  
L. A. Murray. Kilbourn, Wis.  
Moore Mfg. Co. Springfield, Mo.  
Piqua School Fur. Co. Piqua, O.  
Standard School Fur. Co. Chicago  
Thomas Kane & Co. Racine, Wis.

**School Papers.**  
Smith & White Mfg. Co., Holyoke, Mass.

**School Records.**  
O. C. Clark & Co. Cleveland, O.  
Peckham, Little & Co. New York  
Central Sch'l Supply House, Chicago  
E. W. A. Rowles. Chicago  
E. G. Dann & Co. Chicago  
A. H. Andrews Co. Chicago  
C. F. Weber & Co. Kilbourn, Wis.  
L. A. Murray. Kilbourn, Wis.  
American School Furniture Co. New York, Chicago  
Grand Rapids School Furniture Co. New York, Chicago  
Thos. Kane & Co. Works, New York, Chicago  
Cleveland School Furniture Works, New York, Chicago  
Chandler Adjustable Chair & Desk Works, Boston

**School Blanks.**  
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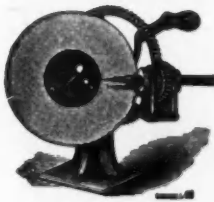
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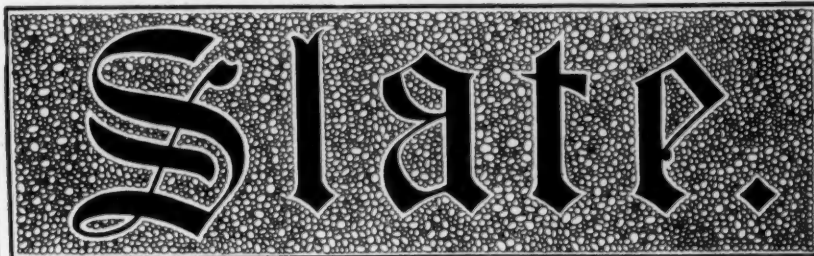
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